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CGIAR
Global Rice Science Partnership

Report of the 8th Biennial Meeting of AfricaRice's National Experts Committee (NEC VIII)
Grand-Bassam and Abidjan, Côte d'Ivoire
30 – 31 July 2012

Establishing Rice Sector Development Hubs

Partnership between Africa Rice Center (AfricaRice) and the National Agricultural Research Systems (NARS) of AfricaRice Member Countries

Biennial Africa Rice Center and National Experts Committee Meeting Report No. 8

About Africa Rice Center (AfricaRice)

The Africa Rice Center (AfricaRice) is a leading pan-African research organization working to contribute to poverty alleviation and food security in Africa through research, development and partnership activities. It is one of the 15 international agricultural research Centers supported by the Consultative Group on International Agricultural Research (CGIAR). It is also an autonomous intergovernmental research association of African member countries.

The Center was created in 1971 by 11 African countries. Today its membership comprises 25 countries, covering West, Central, East and North African regions, namely Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Egypt, Gabon, the Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Madagscar, Mali, Mauritania, Niger, Nigeria, Republic of Congo, Rwanda, Senegal, Sierra Leone, Togo and Uganda.

AfricaRice's temporary headquarters is based in Cotonou, Benin; research staff are also based in Senegal, Nigeria, Tanzania and Côte d'Ivoire. Research staff are also based in Liberia and Sierra Leoone.

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CGIAR

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Report of the 8th Biennial Meeting of AfricaRice's National Experts Committee (NEC VIII)

Grand-Bassam and Abidjan, Côte d'Ivoire 30 – 31 July 2012

1. Introduction

The 8th meeting of AfricaRice's National Experts Committee (NEC VIII) was held in Grand-Bassam and Abidjan, Côte d'Ivoire, on 30 and 31 July 2012. In attendance were the Directors General of the National Agricultural Research Systems (NARS) of AfricaRice member countries or their representatives from the following countries: Benin, Burkina Faso, Côte d'Ivoire, Congo, Gabon, Ghana, Guinea, Guinea Bissau, Liberia, Madagascar, Mali, Mauritania, Niger, Nigeria, Uganda, Central African Republic, Democratic Republic of Congo, Senegal, Sierra Leone, Chad and Togo. Two member countries, Egypt and The Gambia, were absent. The Executive Director of the West and Central African Council for Research and Agricultural Development (CORAF/WECARD) and representatives of rice growers associations from Mali and Senegal also participated in the NEC meeting as observers.

Drs Eugene Terry (former Director General of WARDA) and Habib Ly (former Director General of ISRA, Senegal) participated in the working sessions as invited guest and Consultant rapporteur, respectively.

2. Summary of presentations and discussions

2.1. Opening Ceremony

The 8th NEC meeting held at the N'SA Hotel in Grand-Bassam, Cote d'Ivoire, was officially opened by Professor Abouatier, Permanent Secretary at the Ivorian Ministry of Higher Education, Scientific Research and Technological Innovation, who was deputising for the Minister. This was preceded by welcome statements from the NEC Chair (Dr. Ibet Issa Outhman, Director General of ITRAD, Chad) and the Director General of AfricaRice (Dr. Papa Abdoulaye Seck).

The Chair of NEC in pronouncing his welcome statement underlined the framework that NEC provides for the elaboration and analysis of existing strategies for strengthening AfricaRice and the development of rice farming in Africa. He welcomed his colleague DGs to the meeting with the word “Akwaba”, as is the Ivorian tradition and saluted the organisation of the NEC meeting back in the beautiful country of Cote d’Ivoire after many years of absence.

In his welcome statement, the DG of AfricaRice informed the participants that the NEC meeting, which has been held at the AfricaRice temporary headquarters in Cotonou, Benin, these past years is being organised in Cote d’Ivoire to demonstrate that peace and tranquillity has returned to the country. He thanked all the participants for traveling to Grand-Bassam, particularly Drs. Eugene Terry, Habib Ly and Sitapha Diatta, who he recognized as pioneers of agricultural research in the sub-region.

Dr. Seck emphasized the need for frank dialogue and concerted analysis within NEC to arrive at realistic and achievable recommendations. He highlighted progress achieved by AfricaRice in terms of the results obtained, which have been hailed by the international scientific community. He observed that these achievements were but just one step and that the purpose of research should be for “the well-being of Humanity”. The AfricaRice DG launched an appeal for the optimization of rice farming in Africa, which would require that researchers be involved in development activities as well. According to the AfricaRice DG, researchers of today i) must be “architects and builders of a rice production civilization and the driving force behind the emergence of an “innovation system for quality research”; and ii) must have the obligation to produce useful and useable results for research and science.

In her opening address on behalf of the Hon. Minister of Scientific Research, the Permanent Secretary, Prof. Abouatier, welcomed participants to the 8th meeting of NEC and expressed her appreciation to AfricaRice for the decision to organize this meeting of NARS DGs on Ivorian soil. She transmitted the wish of the Ivorian authorities’ for AfricaRice to return to Côte d’Ivoire without any further delay. According to the Permanent Secretary, steps have been taken by the Ministry of Scientific Research and competent Ivorian institutions to address the requests made by AfricaRice as preconditions for a return to Côte d’Ivoire, namely: (i) making available a 100-office building in Abidjan with large capacity meeting rooms, and parking space for 50 vehicles; (ii) rehabilitation

of laboratories and infrastructure at the M'bé station; (iii) identification of 50 houses for internationally recruited staff; (iv) Côte d'Ivoire to bear the cost of the return to Côte d'Ivoire; and (v) review of the headquarters agreement.

Prof. Abouatier explained the ongoing process of reviving scientific research and technological innovation in Côte d'Ivoire. In this regard, a draft bill on the orientation and programming of scientific research has been passed in Parliament. Research in Cote d'Ivoire will be organized in eight fields of specialization with the objective of pooling human and technical competences, and energy and financial resources for an appropriate and durable development to attain the Millennium Development Goals (MDGs) in the medium term. Before concluding her remarks and declaring the 8th Biennial Meeting of the AfricaRice National Experts Committee (NEC) open, Prof. Abouatier thanked the Ivorian Government under the leadership of His Excellency the President, Mr. Alassane Ouattara, for all the actions and decisions taken to facilitate the return of AfricaRice to its headquarters in Côte d'Ivoire.

2.2. Adoption of the agenda and election of rapporteurs

The proposed agenda was adopted with some minor amendments. Drs. Bino Teme (Director General of IER, Mali) and David Arodokoun (Director General of INRAB, Benin) were elected as official rapporteurs.

2.3. Highlights of AfricaRice activities, October 2011 to July 2012

The AfricaRice DG, Dr Papa Abdoulaye Seck, presented the Center's activities over the 10-month period, October 2011 to July 2012. Before delving into his presentation, he took time out to congratulate the new Executive Director of CORAF/WECARD, Dr Harold Roy-Macauley, and, the new Director General of the Chadian Institute of Agronomic Research (ITRAD), Dr Ibet Outhman Issa, both of whom were participating in the NEC meeting for the first time.

The DG presented in broad outlines the Center's activities and projects implemented since the 7th NEC meeting in September 2010 in Cotonou. He reiterated that all the on-going AfricaRice projects were executed in full (100%) partnership with the NARS, as against only 30.4% in the past. Details of the projects would subsequently be presented by the Deputy Director General and Director of Research and other AfricaRice staff.

The main achievements highlighted by the DG in his presentation were:

i. Approval of the 2011–2020 Strategic Plan by the Board of Trustees and the Council of Ministers. This Plan emphasizes the contribution of research to the attainment of rice self-sufficiency in Africa by year 2020.
ii. Start-up of activities of the Global Rice Science Partnership (GRiSP) in Africa and the 10 conditions for success as enumerated by the DG.
iii. Start-up of the Agronomy and Post-Harvest/Value Addition Task Forces.
iv. The launch in the member countries of Rice Sector Development Hubs (geographical areas or zones where research products and services, and local innovations are integrated across the rice value chain to achieve development outcomes and impact).
v. Training and Capacity Building. A total of 121 NARS scientists have been trained or are being trained at the PhD (48), Master's (51) and Bachelor's (22) degree levels. Under the Global Rice Science Partnership (GRiSP), nine NARS scholars were granted Global Rice Science Scholarships (GRiSS) in 2011 to study for PhD degrees. It is expected that 15 to 18 scholarships will be awarded annually under GRiSS. A total of 23 workshops were organized in which 343 actors across the value chain participated. Task Forces and Multistakeholder Platforms have also contributed to the capacity building of actors in the rice value chain. A Regional Training Center is under construction in Saint-Louis, Senegal, and it will be operational in 2013. UEMOA/WAEMU has recognised the Training Center as a Center of Excellence and has provided an initial financing of US$ 580,000 to support its operationalization.
vi. Projects – AfricaRice is involved in several new projects, which have recently become effective: a) The multinational SARD-SC project funded by AfDB; b) the Africa RISING project funded by the USAID; c) Phase 2 of the Bill and Melinda Gates Foundation funded STRASA project for Asia and Africa; d) effectiveness of the rice policy and value addition project financed by CIDA and involving several countries; and e) the West Africa Agricultural Productivity Program (WAAPP) in Sierra Leone, Liberia and Mali funded by the World Bank.
vii. AfricaRice's visibility - Several activities have taken place to boost the Center's visibility, namely a) celebration of AfricaRice's 40th anniversary in Banjul, The Gambia, in September 2011 following the 28th Ordinary Session of the Council of Ministers; b) Organization of Benin-AfricaRice Day in February 2012, where joint research for development activities between *Institut national des recherches agricoles du Benin* (INRAB)

and AfricaRice were discussed in-depth; c) hosting of 211 visitors and publication of 720 articles on AfricaRice in the national and international press during the period. Visitors to the temporary headquarters included the Chair of the Consortium Board and the CEO of the CGIAR Consortium, with whom the AfricaRice DG shared vision for success of the Consortium in Africa. There are also visits by the Ambassadors of Ghana and France; d) Benin recognized the Consortium as an international organization and was the first African country to do so. This contributed to facilitating the ratification of the CGIAR Consortium as an international organization based in Montpellier in France; and e) operationalization of the Protocol of Agreement with the African Union.

viii. The return of AfricaRice headquarters to Côte d'Ivoire – the AfricaRice DG was authorized by the Board in 2010 to embark on negotiations with the Ivorian authorities on the conditions for a return of the Center to its headquarters in Côte d'Ivoire. The negotiations have resulted in the offer of a headquarters building in Abidjan by the Government of Cote d'Ivoire and a commitment to provide financial support towards the rehabilitation of the Mbe station.

ix. Mobilisation of financial resources - The AfricaRice budget has doubled in three years and will triple by 2013. The additional resources and an increase in the number of countries that have joined AfricaRice (from 11 to 17 and now 24) will need to be efficiently managed. Besides, five countries are on the waiting list and 11 non-member countries benefit from AfricaRice's activities.

Summary of discussions

AfricaRice was congratulated for the activities undertaken and for opening up to new members and partners. The concept of researchers being architects and builders was well received as it would contribute to making agricultural research a real development tool. The important role of the task forces in the training of young researchers, and the post-doctoral fellow scheme in capacity building was recognized.

The conditions for the return of AfricaRice's headquarters to Côte d'Ivoire were extensively debated. All the pertinent elements justifying the choice of Abidjan to host the headquarters, with M'bé becoming a regional station, were provided by the DG to the satisfaction of the National Experts Committee.

2.4 Status of implementation of recommendations of the 7th NEC meeting

The status of implementation of the recommendations of the 7th NEC meeting was presented by Dr Samuel Bruce-Oliver, Adviser to the AfricaRice DG. He reported that all the NEC07 recommendations have been implemented. AfricaRice was congratulated for this high level of implementation of the recommendations. It was suggested that Recommendation 3, which talks about building research and development in member countries should rather be making reference to research for development.

2.5 Implementation of the 2011–2020 Strategic Plan

The Deputy Director General and Director of Research at AfricaRice, Dr Marco Wopereis, presented the Strategic Plan, which describes the evolution of rice production in Africa and in the world and highlights the gaps to be filled with and without the contribution of research. The research activities elaborated in the Strategic Plan will help to reduce rice imports into Africa by 67% by 2020. That should induce an increase in the rice self-sufficiency rate on the continent from the current 60% to at least 87% by 2020. Subsequently, the implementation of this plan will contribute to poverty alleviation in rural and urban areas, the reduction of malnutrition and the sustainable management of natural resources.

The Strategic Plan also provides for capacity building in agricultural research in Africa. In fact, it envisages scholarships annually for the training of up to 30 young researchers at the PhD and Master's levels. The Strategic Plan also underlines the partnership between the entire spectrum of national and international agricultural research institutions, the private sector, civil society, NGOs, political decision-makers and financial institutions.

Summary of discussions

Questions of clarification raised by participants revolved around the criteria for the selection of Rice Sector Development Hubs. The participants noted the low level of mechanization in rice production and the difficulties in implementing the Hub concept. It was concluded that the NARS are responsible for the selection of geographical zones where the Hubs will be located and for their sound management, although it was recognized that they would need support.

2.6 Policy on the management of intellectual assets

According to Dr. Takashi Kumashiro, the objective of the AfricaRice policy on the management of Intellectual Assets is to provide a number of clear and transparent principles on intellectual property that AfricaRice will apply in all its research and development activities. The policy conforms to that of the CGIAR Consortium in force since the 1st July 2011.

AfricaRice considered the following factors in adopting the assets management policy: a) the pan-African organizational character of AfricaRice; b) AfricaRice as an autonomous intergovernmental research institution; c) its partnership with a variety of actors, including farmers; d) the need to respect the obligations of the international treaty on phytogenetic resources for food and agriculture; and e) the need to take into account the CGIAR Consortium's policy on the management of intellectual assets.

Dr Kumashiro explained the differences between intellectual property (IP) and intellectual property rights (IPR) and the principles of intellectual property management.

Summary of discussions

The participants posed questions, particularly on the process for obtaining intellectual property rights.

2.7 Breeding Task Force and the new PVS protocol for accelerating the release of rice varieties

Dr Moussa Sie, AfricaRice Senior Rice Breeder provided a historical narrative of the long partnership between AfricaRice and the NARS, which has led to the re-establishment of the Task Forces which had been dissolved. The Breeding Task Force, the first to be re-established, will have responsibility for the breeding and improvement of rice varieties in Africa. He then proceeded to define the objectives and mode of operations of the Breeding Task Force.

With respect to the PVS approach, which focuses on the farmer's criteria, Dr. Sie indicated that the choice of varieties is the joint responsibility of breeders and farmers, contrary to the classical method which involves farmers only at the

tail end of the selection process. The latter has resulted often in the rejection or weak adoption by farmers of released varieties. Dr. Sie then emphasized the critical need to involve NARS breeders in the process and to train young breeders to compensate for the current scarcity of senior breeders.

2.8 The Sahel Station and the Regional Training Center in Saint-Louis

The AfricaRice Regional Representative in Senegal, Dr Vincent Bado, presented an update on the AfricaRice Sahel Station, which has undergone tremendous positive changes in recent years. The station's laboratories are now of a high technical calibre and the entire infrastructure has been rehabilitated. Several projects are in place and the number of researchers has increased from three to 11 between 2006 and now.

Dr. Bado also reported on progress in the construction of the Regional Rice Training Center and hostel at Boudioux, Saint-Louis, Senegal. This Center will cater for the capacity building needs in rice production and technology transfer on the continent. He justified the establishment of such a Training Center on many fronts, i) as a response to the recommendations of the 2nd Africa Rice Congress for a Marshall Plan on capacity building and ii) based on the great number of training requests and AfricaRice's current practice of hiring hotels that do not meet the requisite conditions for the smooth running of training sessions. This Training Center project aligns with the strategy to decentralize training and research activities and strengthen the regional stations.

Summary of discussions

The NEC expressed their satisfaction with the changes undertaken at the Saint-Louis station, including the establishment of the Regional Training Center. AfricaRice management, the Head of the Sahel Station and staff were congratulated for their concerted efforts in upgrading the station and establishing the Training Center. AfricaRice Management was requested to make the Center accessible to all the actors in the rice sector in Africa.

2.9 Feasibility of the return of AfricaRice to Côte d'Ivoire

Dr Amadou Beye, AfricaRice Regional Representative based in Côte d'Ivoire, reported on the current state of the infrastructure and equipment at the M'be station, which has remained intact and in good running condition. Since the

temporary relocation of AfricaRice's headquarters to Benin in 2005, this station has continued to be used for the production of rice seeds for farmers.

Dr Beye also gave a general overview of living conditions in Abidjan, Yamoussoukro and Bouake and the situation with respect social and sanitary services, universities and schools in Côte d'Ivoire. It appears that most of these structures are functional. AfricaRice has submitted several requests to the Ivorian Government with respect to facilitating the return of AfricaRice's headquarters to Côte d'Ivoire.

Summary of discussions

The participants thanked the Ivorian authorities for maintaining the M'bé station intact and in a perfect condition, and requested AfricaRice to continue negotiations for a rapid return to Côte d'Ivoire.

3. Visit to the National Agricultural Research Center (CNRA), Côte d'Ivoire

A field visit was organized to the CNRA headquarters in Adiopodoume to enable the DGs to view first hand some of the operations of the Ivoirian NARS. The participants were welcomed at the CNRA headquarters by the Chair of the Board of Directors, the Director General and staff of CNRA. The CNRA field visit comprised, presentations on CNRA and its activities, viewing of exhibition stands and the biotechnology laboratory. CNRA, which is run like a private enterprise, has about 1,800 staff with 100 considered as scientists. Its current budget is US$ 27 million consisting of contributions from the state at 20%, from private funds (20%) and 60% of resources generated internally.

4. Recommendations and motions

At the end of the presentations and discussions, NEC formulated eight recommendations and four motions as follows:

4.1. Recommendations

Recommendation 1: Rehabilitation of the Sahel Station

NEC noted the important investments made in upgrading the Sahel Station in Saint-Louis by providing it with infrastructure, equipment, and a critical mass of researchers who are implementing quality research projects.

NEC congratulated AfricaRice management for the rehabilitation of the Sahel Station in Saint-Louis and recommends that it maintains and consolidates these achievements, which make this Station a powerful and special tool for research for development.

Recommendation 2: Establishment of a Regional Training Center in Saint-Louis

In view of the importance of training and capacity building, on the one hand, and the necessity to rationalize and make its action more efficient in this priority area, on the other hand, AfricaRice has taken a major initiative by establishing a Regional Rice Training Center in Boudioux in the northern suburb of Saint -Louis.

NEC congratulates AfricaRice for having obtained financing on a competitive basis from UEMOA/WAEMU for the Training Center and for making the Sahel Station a Center of Excellence for research and training for UEMOA/WAEMU.

NEC encourages and recommends that AfricaRice, in collaboration with the NARS, should:

- Develop attractive programs and study the possibility of opening the Center for use by external trainers, NGOs or private entities desirous of holding meetings or workshops at the Center.
- Look for additional resources necessary for the prompt opening and optimal management of the Center.
- Preserve the image of a Center of Excellence.

Recommendation 3: Return to AfricaRice Headquarters in Côte d'Ivoire

NEC noted the steps taken internally by the DG of AfricaRice and with the Ivorian authorities for the return of AfricaRice to Côte d'Ivoire under the most favourable conditions, with headquarters in Abidjan.

NEC congratulates and encourages the DG of AfricaRice, and recommends that the negotiations and actions be pursued until positive results are obtained. A road map for timely return of the headquarters to Côte d'Ivoire will be drawn up after the following preconditions are met:

i. Implementing the conclusions of the studies commissioned on the conditions for a return.
ii. Concretization of the commitments of the Ivorian authorities.
iii. Deliberations by the AfricaRice Board of Trustees.
iv. Final decision by the Council of Ministers.

NEC is pleased that the DG of AfricaRice is determined to do everything possible to ensure the return of the headquarters to Côte d'Ivoire and to obtain assistance from our partners in this regard.

Recommendation 4: Implementation of Rice Sector Development Hubs (Hubs)

NEC recognizes that the organization, harmonization and synergy of "Hubs" needs to be clarified in order for the technologies generated by research to have significant impact; that the hubs will be established and managed by the NARS using a results-based framework, and finally that the proper functioning of the hubs will require facilitation and a sound participatory organization.

NEC recommends that NARS themselves set up the hubs in the respective countries with assistance from AfricaRice based on criteria that will ensure success.

Recommendation 5: Implementation of Task Forces

Task Forces are mechanisms that permit the pooling of resources and the sharing of results on certain themes. The Agronomy and Post-Harvest & Value Addition Task Forces are now in place while the Breeding Task Force has been in existence since 2011. Mechanisation is taken into account in the Agronomy and Post-Harvest & Value Addition Task Forces.

NEC congratulates AfricaRice and the NARS for the reestablishment of four Task Forces since the 2nd Africa Rice Congress held in Bamako in 2010 and recommends that AfricaRice:

i. continue to provide resources for the running and implementation of the activities of the Task Forces.
ii. study in collaboration with the NARS, mechanisms and modalities for the rapid creation of a Mechanization Task Force.

Recommendation 6: GRiSP scholarships to NARS students

The training of young people and capacity building constitute the main priorities for the NARS. Within the framework of GRiSP, nine scholarships have been awarded to young NARS students and there is a likelihood that the number of scholarships will increase.

NEC congratulates AfricaRice and encourages the Center to persist in its efforts to increase as much as possible the number of scholarships offered in view of the enormous training needs.

Recommendation 7: Memorandum of Understanding with the African Union

The visit of the representative of the Chair of the African Union Commission to Cotonou and meetings held in Addis Ababa with other African partners are some of the initiatives undertaken to implement the memorandum signed with the African Union in 2011.

NEC is pleased with this strategic positioning of AfricaRice and encourages the Center to explore all possibilities at its disposal to influence rice policies in Africa and better ensure its specificity as an inter-governmental Association and a member of the CGIAR.

Recommendation 8: Initiatives in Central Africa

NEC congratulates the DG of AfricaRice for his many visits and actions taken in favour of Central Africa in a bid to make AfricaRice better known and to reenergize rice production in the region. These contacts should result in agreements with the countries and regional organizations and the establishment of Regional Research station during the implementation of the 2011-2020 Strategic Plan. The request for the financing of such a station could be made to the Economic Community of Central African States (ECCAS) among others.

NEC welcomed AfricaRice's decision to hold the 3rd Africa Rice Congress in Yaoundé, Cameroon, in 2013.

NEC recommends that AfricaRice, in collaboration with the NARS in Central Africa, implements the following:

i. Organize an informal meeting to take stock of the relations between AfricaRice and the NARS, assess the needs and draw up an action plan for implementing the program of the activities identified.
ii. Determine the mechanisms and means (Ex. PRASAG) for coming up with projects for the region.
iii. Study the modalities for setting up an AfricaRice Regional Station in Central Africa.

4.2. Motions

Motion 1: Proper conservation of the Station at M'bé

The NEC congratulated AfricaRice and the Ivorian authorities for the maintenance, conservation and protection of AfricaRice's station in M'bé in spite of the difficulties and the risks encountered.

Motion 2: Agreement with Nigeria

The agreement deals with the production of rice seed, post-harvest technology and mechanization. The DG of AfricaRice was appointed to be part of the National Committee presided over by the Nigerian President, H.E. Goodluck Jonathan.

NEC congratulated the DG of AfricaRice on his appointment to this high office of political decision makers, which is a sign of his leadership and the importance Nigeria accords to AfricaRice.

Motion 3: Boosting the rice sector in Liberia, Sierra Leone and Mali

The NEC congratulates AfricaRice for signing agreements of cooperation with the Governments of Liberia, Sierra Leone and Mali within the framework of WAAPP. These agreements are examples to emulate in order to increase collaboration and build bridges between the different projects and existing organizations.

Motion 4: Consortium of the Consultative Group for International Agricultural Research (CGIAR)

During the visit to Cotonou of the Chair of the Consortium Board and the CEO of the Consortium, the DG shared his thoughts on the conditions and mode of operation that the Consortium needs to follow in order to be successful in Africa.

NEC adopted the criteria for success, thanked and congratulated the DG of AfricaRice for having done so on behalf of the NARS.

5. Closing ceremony

The Chair of NEC closed the 8th NEC meeting at the closing ceremony held in the CNRA Conference Room after deliberations and adoption of the recommendations and motions. He was pleased with the smooth running of the meeting and the results obtained. He specifically asked AfricaRice and NEC members to ensure that the recommendations are effectively carried out. The Chair then thanked the Government of Côte d'Ivoire, CNRA, AfricaRice's Representative in Côte d'Ivoire, and the interpreters for their contribution to the success of the 8th NEC meeting.

Vote of Thanks

NEC expressed its fraternal gratitude to the Government and People of Côte d'Ivoire for their warm welcome, for the official opening of the 8th NEC Meeting by the Permanent Secretary on behalf of the Honourable Minister of Higher Education, Scientific Research and Technical Innovation, and for the opportunity offered to visit the CNRA headquarters.

The thanks of the National Experts Committee were equally directed to the Government of Côte d'Ivoire for its dedicated commitment to facilitating the return of AfricaRice to its headquarters in Côte d'Ivoire.

ANNEX I

Provisional Agenda and Work Program

<u>Monday, 30 July 2012</u> (Day 1)

08:00 – 08:30	Arrival and Registration
08:30 – 09:00	Welcome Remarks, Ibet Outman, NEC Chair (DG-ITRAD-Chad) Welcome Remarks, Papa Seck, DG-AfricaRice Official Opening Address – Hon. Minister of Scientific Research & Higher Education, Cote d'Ivoire
09:00 – 09:30	Coffee Break & Group Photo
09:30 – 09:45	Adoption of Agenda and Work Program and Election of Rapporteurs
09:45 – 10:00	Status of Implementation of Recommendations of 7th NEC (Samuel Bruce-Oliver, Advisor to DG-AfricaRice)
10:00 – 10:30	Information on AfricaRice (since last Council of Ministers meeting) (Papa Seck, DG-AfricaRice)
10:30 – 11:00	Discussion
11:00 – 12:00	Implementing the 2011 – 2020 Strategic Plan – Concept of Rice Sector Development Hubs (Marco Wopereis, DDG-R, AfricaRice)
12:00 – 12:30	Discussion
12:30 – 14:30	Lunch

14:30 – 15:00	NARS Framework Agreement on Governance & Operationalization of Rice Sector Development Hubs (Papa Seck, DG-AfricaRice; Marco Wopereis, DDG-R, AfricaRice)
15:00 – 15:30	Rice Breeding Task Force and new PVS protocol - Accelerating Release of Rice Varieties (Moussa Sie, Leader-Breeding TF, AfricaRice)
15:30 – 16:00	Discussion
16:00 – 16:30	Coffee Break
16:30 – 17:00	St.-Louis Regional Training Center (Vincent Bado, AfricaRice Regional Representative-Senegal)
17:00 – 17:30	Discussion
17:30 – 18:00	Feasibility of AfricaRice's Return to Cote d'Ivoire (Amadou Beye, AfricaRice Regional Representative, Cote d'Ivoire)
18:00 – 18:30	Discussion
18:30 – 19:00	AOB
	End of Day 1
20:00	Cocktail Dinner

<u>Tuesday, 31 July 2012</u> (Day 2)

08:30 – 12:30	Visit to Headquarters of CNRA-Cote d'Ivoire
12:30 – 14:00	Lunch

Closing

14:00 – 14:30	Presentation of Synthesis Report & Recommendations (Rapporteurs)
14:30 – 15:00	Closing Remarks (AfricaRice DG, Chair of NEC)
15:00	End of NEC VIII

ANNEX II

Developments at AfricaRice presented by Dr Papa Abdoulaye Seck, AfricaRice DG

Important events have marked the last 10 months at AfricaRice since the 28th Council of Ministers Session and tangible progress has been achieved in close collaboration with national partners. Some of the highlights of this period are presented here.

SIGNIFICANT DEVELOPMENTS

AfricaRice's 40th anniversary celebration

AfricaRice's 40th anniversary celebration, which took place just after the 28th Session of CoM, was commemorated in the Gambia, which is one of the founding members and remains one of the main supporters of local rice in the continent.

It was inaugurated by the Minister of Trade of the Gambia amidst the presence of the outgoing and incoming CoM Chairs, other representatives of the CoM, members of the diplomatic corps and donor community, the AfricaRice Board Chair, national and international researchers, development partners, the private sector and farmers' organizations.

An important feature of the event was a keynote address on "Fostering small scale rice production for food" by Dr. Josué Dioné, Director of Food Security and Sustainable Development at the UN Economic Commission for Africa (UNECA).

The program also included a panel discussion on "Investments in small scale rice value chains: challenges and opportunities." Moderated by the Board Chair, the panelists who represented the entire range of the rice value chains, brought attention to the need for a holistic approach to the rice sector, taking into account the needs and priorities of all the actors of the value chain. As a side event of the celebration a Rice Policy Research and Advocacy stakeholders' conference was organized.

Strategic Plan unveiled

A product-oriented 10-year strategic plan for realizing Africa's tremendous rice potential and help the continent achieve almost 90 percent self-sufficiency in rice by year 2020 was unveiled in end 2011 after approval by AfricaRice Council of Ministers and Board.

The strategy, aligned to CAADP objectives, articulates seven priority areas, which were identified through extensive consultations with national partners and other partners. In view of its unique status and its recognition by the African Union as a Center of Excellence for Rice Research in Africa, AfricaRice is ideally positioned to coordinate the implementation of the new strategy across Africa in close association with its national partners.

Global Rice Science Partnership (GRiSP) activities initiated in Africa

GRiSP activities in Africa began to be implemented in Africa under the leadership of AfricaRice in coordination with its global and national partners. GRiSP proposes a new global approach to research for bigger impact by pooling intelligence to better exploit the comparative advantages of all the partners.

AfricaRice Director General spelt out 10 conditions for GRiSP's success at the First GRiSP-Africa Forum held in Oct 2011:

1. Respecting the diversity of partnerships;
2. Taking into account regional differences;
3. Giving importance to institutional identities;
4. Rejecting hegemonic thinking;
5. Equitable resource allocation based on real needs of various regions;
6. Strengthening the capacity of African stakeholders;
7. Strong role of national partners within the GRiSP;
8. Continuous dialog with policy-makers;
9. Avoiding bureaucracy; and
10. Reducing excessive evaluation so that scientists spend more time doing research rather than writing reports.

Formal support gained from UEMOA

For the first time in the history of AfricaRice, UEMOA is supporting the Center for capacity development in UEMOA countries through the development of a Regional Rice Training Center and has officially recognized us as a Center of

excellence for rice research and training in West Africa. For AfricaRice, this is a significant development in terms of mobilizing financial support from the South.

Global Rice Science Scholarships (GRiSS) launched

GRiSS was launched in 2011 with support of GRiSP. AfricaRice facilitated the winning of GRiSS by nine PhD students from Africa in December 2011. This represents one-third of the total number of successful GRiSS candidates selected from around the world through a highly competitive process. These awardees will be part of the new generation of rice scientists who will strengthen Africa's research capacity.

Significant funding mobilized through the AfDB Multinational CGIAR project (SARD-SC)

The African Development Bank is supporting a 5-year, multi-CGIAR Center project entitled "Support to Agricultural Research for Development of Strategic Crops in Africa" (SARD-SC).

AfricaRice will lead the rice component of this project with a budget of US$14.4 million over 5 years. The target countries are Benin, Cote d'Ivoire, Ethiopia, Ghana, Madagascar, Niger, Nigeria, Senegal, Sierra Leone, Tanzania and Uganda.

Collaboration with World Bank WAAPP (Sierra Leone, Liberia, & Mali)

In the context of the World Bank's West Africa Agricultural Productivity Program (WAAPP) Support Program, AfricaRice was approached by Sierra Leone and Liberia to provide technical backstopping for rice development and from the national center of excellence for rice in Mali for support in seed system. MoUs have been signed.

As part of AfricaRice's strategy, Liberia and Sierra Leone are focus countries for assistance to rebuild their rice R&D capacities.

Partnering with USAID Africa Rising Program

AfricaRice is partnering in the USAID Africa RISING program, which is led by IITA and funded by USAID. The program aims at sustainably intensifying farming systems. AfricaRice is involved in the rice-related component targeting Sudano-Sahelian zone (Ghana) and Eastern and Southern Africa (Tanzania).

Active involvement in phase 2 of Gates Foundation projects for Asia and Africa involving rice

Building on the achievements of phase 1 of the multimillion dollar project on Stress-Tolerant Rice for Africa and South Asia (STRASA), the phase 2 of the project was launched. The phase 2 will cover 18 SSA countries: Benin, Burkina Faso, Burundi, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Guinea, Kenya, Madagascar, Mali, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, Tanzania and Uganda.

Similarly, the phase 2 of the Gates Foundation-funded Green Super Rice project on hybrid rice is being launched thanks to successful partnership of AfricaRice and the national programs in the phase 1.

Launch of the Africa Rice Agronomy Task Force and Rice Processing and Value Addition Task Force

In 2011, Africa-wide Task Forces were set up on critical thematic areas in the rice sector. AfricaRice is facilitating these Task Forces in response to the recommendation of the 2nd Africa Rice Congress. Focusing on five themes – (1) breeding; (2) agronomy; (3) postharvest & value addition; (4) policy; and (5) gender – the Africa rice task forces are based on three principles: sustainability, development of critical mass and ownership by the national agricultural research systems.

The Africa Rice Agronomy and Postharvest & Value Addition Task Forces were launched in December 2011 in Cotonou, which was attended by participants from 14 African countries. These two Task Forces also deal with the issues relating to mechanization.

The Africa Rice Gender Task Force was also launched last year. More opportunities will be targeted to promising young women scientists to pursue their careers in rice science. The Africa Rice Breeding Task Force is already in operation and has been actively organizing training programs on breeding, experimental design, and germplasm database management for national researchers.

Launch of Rice Sector Development Hubs

An innovative concept of "Rice Sector Development Hubs" (good-practice areas) was introduced to achieve greater impact of rice R&D. The hubs will generally involve large groups of farmers (1000–5000) and other value-chain actors, such as rice millers, input dealers and rice marketers to test on the ground new rice technologies and new institutional arrangements (contracting) between value-chain actors. National partners have been involved in the selection of hubs in their respective countries.

Operationalizing the MoU with the African Union (AU)

Following the signing of the MoU with the AU in 2011, representative of AU and AfricaRice along with other strategic partners have met in Addis and Cotonou to elaborate further concrete activities in line with the MoU in order to promote the rice sector in the continent through research, development, supportive policies and capacity building. To operationalize the MoU, the AU Commission sent a delegation along with representatives from UNECA, FAO, IFDC, UEMOA, and FARA in March 2012 to AfricaRice for an in-depth discussion.

AfricaRice was specially invited by the AU Commission (AUC) in Oct 2011 to the Africa Food and Nutrition Security Day (AFNSD), where the Director General affirmed the Center's full commitment to the goals of AFNSD. The event was inaugurated by Dr. Jean Ping, AUC Chairperson. In addition to AUC and NEPAD members, representatives from the Agriculture Ministry of Ethiopia, the Government of Malawi, the European Union, United Nations Agencies, AfricaRice, and non-governmental organizations attended. The active presence of the AfricaRice delegation was highly appreciated by the AUC. A display by AfricaRice showcasing a wide range of rice-based food products was a major highlight of the event.

Strategic alliance with Syngenta Foundation

Based on the successful implementation of the first Syngenta Foundation-AfricaRice joint project on rice value chain which served as a "proof of concept" model, the Syngenta Foundation has recognized AfricaRice as a strategic partner for its major value chain project in Africa, which it is planning to launch. The Foundation and AfricaRice are also planning to recruit a Rice Seed Specialist on a shared basis.

Progress in the CIDA-funded innovative project on rice policy and value addition The Canadian International Development Agency (CIDA)-funded multi-million dollar project to enhance the quality and marketability of locally-produced rice, which was launched in 2011, has closely involved national partners in 8 countries: Cameroon, Gambia, Ghana, Mali, Nigeria, Senegal, Sierra Leone and Uganda.

The project focuses on the development and evaluation of suitable harvest and postharvest technologies for producing quality rice products that respond to market demands. At the same time, local farmers and processors in the target countries are being trained to apply these technologies.

In order to ensure buy-in from regional communities, the CIDA Steering Committee includes CEMAC and ECOWAS. The first Steering Committee meeting was organized in Dec 2011.

Facilitating Benin's endorsement of the CGIAR Consortium as an international organization

Benin was the first African country to officially endorse the CGIAR Consortium, based in Montpellier, France, as an international body. Facilitated by the partnership between AfricaRice and Benin, the official ratification took place in April 2012.

Benin-AfricaRice Day organized

For the first time, an official day for in-depth discussion of all joint R&D activities between INRAB and AfricaRice was organized in Feb 2012. The participants included Government officials and representatives from INRAB, AfricaRice and other partners. Based on the success of this event, it was recommended that the event would be institutionalized. Similar events would be held in other member countries in consultation with respective national partners.

Visit of the CGIAR Consortium Board Chair and CEO to AfricaRice

CGIAR Consortium Board Chair and recently-appointed CEO visited Africa Rice Center in Benin in Jul 2012. After interacting with AfricaRice Management and staff as well as with representatives of national partners, farmer organizations

and women seed producers' associations, they appreciated highly the vision of the Director General, the unique strengths of the AfricaRice system particularly in terms of real partnership on the ground which can contribute to strengthening the new CGIAR.

ANNEX III

Status of Implementation of 7th National Experts Committee (NEC) Recommendations

Recommendation 1: Achievements by AfricaRice DG and his team

The NEC is impressed by the many and significant achievements of the AfricaRice DG and his team during his first term, namely:

i) the geographical expansion of the Center's membership (24 member countries in 2010);
ii) the increase in the number of publications and joint projects with NARS;
iii) the Outstanding rating from the World Bank based on scientific, administrative and financial indicators;
iv) the development of a CG Research Program – the Global Rice Science Partnership (GRiSP) – which is the only CRP approved by the CGIAR Consortium Board;
v) the successful organization of the 2nd Africa Rice Congress in Bamako, Mali,
vi) the strong advocacy on behalf of member countries and AfricaRice in international and local fora, and various meetings and
vii) the excellent financial health of the Center,

The NEC encourages the Director General and his staff to do everything possible to continue to maintain this path of excellence.

Recommendation 2: Global Rice Science Partnership (GRiSP)

The NEC notes with satisfaction the approval by the Consortium Board of the CG Research Program called the Global Rice Science Partnership (GRiSP),

It recommends that the Center focuses now on the elaboration of a Strategic Plan for the next 10 years (2011 – 2020).

AfricaRice Response

The 2011-2020 Strategic Plan was finalized and endorsed by the Board of Trustees, and subsequently approved by the Council of Ministers at its 28th Ordinary Session in September 2011 in Banjul, The Gambia.

Recommendation 3: Building research and development capacity in member countries

Due to the weak research and development capacity of member countries,

The NEC urges AfricaRice to revive the rice Task Force mechanism in order to build collaboration in research for development on the major thematic areas of the rice sector, based on the principles of sustainability, building critical mass, experience sharing and the ownership of knowledge by the national agricultural research systems.

AfricaRice Response
The Task Force mechanism was revived starting in 2011. Five Task Forces are currently operational and they are:
Rice Breeding Task Force
Agronomy Task Force
Processing and Value Addition Task Force
Policy Task Force and
Gender Task Force

Recommendation 4: Strengthening linkages with Regional Economic Communities

The NEC recommends that AfricaRice i) collaborates more with Regional Economic Communities such as ECOWAS in order to ensure price stability, and harmonization of seed legislation, ii) register the products of the new Breeding Task Force (ARICA lines) in the regional varietal catalogues, and iii) develops regional rice development strategies.

AfricaRice Response
A draft outline of a Regional Rice Development Strategy for West Africa has been elaborated and sent to ECOWAS for review. A workshop for the validation of the outline will be organized in September 2012 in Cotonou.

AfricaRice has signed a MoU with the African Union (AU) and a joint consultative meeting was held in Cotonou, 15-16 March 2012. This regional consultative workshop was attended representatives of the African Union Commission (AUC), the United Nations Economic Commission for Africa (UNECA), FAO,

CORAF/WECARD and IFDC. This opens avenues for policy dialogue with the United Nations Economic Commission for Africa (UNECA). An outcome of the policy dialogue is that a joint technical consultative workshop will be organized in order to provide a platform for partnership synergy and to strengthen the linkages with the regional institutions involved in various activities related to the development and promotion of food and agricultural commodities in the ECOWAS region.

A joint technical workshop on the development and promotion of regional strategic food and agricultural commodity value chains will be organized by AfricaRice in August 2012 in Cotonou and the United Nations Economic Commission for Africa (UNECA); other partners will attend the meeting.

Efforts have also commenced for the elaboration and eventual signing of a MoU with CEMAC.

Recommendation 5: AfricaRice Headquarters in M'be

The permanent headquarters of AfricaRice remains M'be, Cote d'Ivoire, where the infrastructure is well maintained and intact.

The NEC notes the positive evolution of the socio-political situation in Côte d'Ivoire and encourages the team in place to continue to maintain the upkeep of the headquarters.

Recommendation 6: Joining the Temperate Rice Research Consortium (TRRC)

The NEC thanks Egypt for strongly pointing out the importance of TRRC in terms of rice research.

The NEC recommends that AfricaRice joins the Temperate Rice Research Consortium (TRRC).

AfricaRice Response
Efforts are ongoing in this direction. However, the situation in Egypt has slowed down the process.

Recommendation 7: Reinforcement of partnership with Egypt

The NEC appreciates the performance of Egypt in irrigated rice research and recommends that AfricaRice and Egypt prepare a research and training project proposal to be submitted to the Islamic Bank for Development or other donors.

The objective of this project is to bring together expertise from Egypt and AfricaRice in irrigated rice systems to bridge the important yield gap and face the challenges of climate change in Africa. AfricaRice will be handling facilitation of NARS training in Egypt.

AfricaRice Response
The project is under development.

Recommendation 8: Post-harvest Technologies and value chains

The National Experts Committee notes with satisfaction the work achieved in the area of post-harvest technologies and value chain, and recommends that AfricaRice reinforces advocacy for rice, and also partnerships with all stakeholders along the value chain in order to contribute to achieving the Millennium Development Goals.

AfricaRice Response
AfricaRice has signed a MoU with the AU and is actively engaged in the alignment of the CGIAR-Africa agenda and CAADP priorities.

Recommendation 9: Project proposal to CIDA

Having taken note of the regional project proposal "Enhancing food security in Africa through the improvement of rice post-harvest handling, marketing and the development of new rice-based products" submitted to the Canadian International Development Agency (CIDA) and covering Cameroon, The Gambia, Ghana, Mali, Nigeria, Senegal, Sierra Leone and Uganda;

The NEC commends this initiative by AfricaRice and encourages the Center to intensify its efforts in resource mobilization to improve post-harvest technologies and practices, and develop the rice sector value chain.

AfricaRice Response

New resource mobilization efforts have led to the approval of the African Development Bank funded SARD-SC project that has a substantial component on rice sector value chain development. The project will mobilize approximately US$15 million for a period of five years for rice research for development activities and is expected to start in October 2012. Emphasis will be on development of good agricultural practices, mechanization, setting up of rice sector development hubs and capacity building across the value chain.

Recommendation 10: Integration of the gene banks of the CGIAR under the Convention on Biological Diversity (CBD)

The NEC is concerned with the expansion of the CBD which could result in the inclusion of materials that come under the International Treaty on Genetic Resources for Food and Agriculture under the CBD. This would be a bottleneck for genetic resource exchange between research institutions.

And recommends that AfricaRice member countries initiate advocacy at the level of their Ministries of Agriculture and Environment to make sure that the African representatives participating in the CBD negotiations are well informed of the treaty's current benefits to African agriculture, and the need for African countries to make the most of these spin-offs.

AfricaRice Response

At the end of the Conference of the Parties to the Convention on Biological Diversity (COP 10) in Nagoya, Japan, on the 29th October, 2010, all the parties (including the African representatives) adopted a consensus Nagoya protocol with two important issues relating to the Treaty:

Firstly, the Nagoya Protocol of the CBD finally recognizes the pre-existing access and benefit sharing norms established by the International Treaty on Plant Genetic Resources for Food and Agriculture. Secondly, the Nagoya Protocol explicitly creates space for the development of future specialized access and benefit sharing regimes that are consistent with the objectives of the CBD and the Protocol.

This is good news because, in the future, it will be important for the international community to agree to multilateral access and benefit sharing norms for other

genetic resources used in agriculture, beyond those under the International Treaty, for example for agricultural microbial genetic resources, or farm animal genetic resources.

Recommendation 11: Recognition of the Contribution of NARS to the development of research products

The NEC approves the revitalization of the Task Force mechanisms and recommends that recognition and credit be given to the NARS involved in the development of rice varieties.

AfricaRice Response

It has been agreed that the ultimate products of the Africa-wide Rice Breeding Task Force will receive an ARICA name, which will be a reflection of the joint efforts of the Task Force.

Recommendation 12: Strengthening of the rice sector in the member countries

The NEC notes that since the 2008 food crisis, most member states have realized the importance of local rice production. Therefore, each country has developed national strategies for sustainable rice production, which could lead to decreased dependence on rice imports.

The NEC encourages countries to implement these strategies fully and recommends that member countries support rice research for development and training to reach their strategic objectives.

Vote of Thanks

The NEC expresses its sincere thanks to the Government and the people of Benin for the warm and fraternal welcome as well as the hospitality extended to all participants. Thanks are also due to the Government of Cote d'Ivoire for preserving the integrity of the AfricaRice Headquarters in M'bé despite the Ivorian crisis.

ANNEX IV

Policy on the Management of Intellectual Assets

I. Preamble

Whereas Africa Rice Center (AfricaRice) is a leading pan-African research organization with a mission to contribute to poverty alleviation and food security in Africa through research, development and partnership activities on rice;

Whereas AfricaRice is an autonomous intergovernmental research association of African member countries and member of the CGIAR Consortium of International Agricultural Research Centers;

Whereas AfricaRice regards the results and outputs of research and development activities as international public goods and is committed to their widespread diffusion and use and to achieving the maximum possible access, scale and scope of impact from them for the benefit of the poor, especially farmers in developing countries;

Whereas progress towards AfricaRice's Mission relies on partnerships with a wide range of partners, including farmers, national agricultural research systems, advanced research institutes, civil society organizations, governments, national, regional and international organizations and the private sector, including small and medium enterprises whereas such partnerships may require incentives that must be innovatively designed, carefully managed and diligently monitored;

Whereas AfricaRice recognizes the indispensable role of farmers, indigenous communities, agricultural professionals, and scientists in conserving and improving genetic resources of rice;

Whereas complying with its responsibilities, AfricaRice accepts its obligation to comply with the International Treaty on Plant Genetic Resources for Food and Agriculture ('Treaty'), and all other relevant international treaties and agreements;

Whereas on 6 May 2011 the Consortium Board adopted the Consortium Policy on the Management of Intellectual Assets ("IA Policy") (with effect from 1 July 2011) which provides a common set of principles that the Consortium and

its Member Centers will abide by with regard to the production, acquisition, management, and dissemination of intellectual assets within the context of the Strategy and Results Framework ("SRF");

Now AfricaRice adopts the following policy on the management of intellectual assets ("Policy"). This Policy shall be read in conjunction with the Consortium IA Policy and does not contain anything that contradicts the IA Policy.

II. Objective

The objective of this Policy is to provide a clear and transparent set of principles that AfricaRice will apply with regard to the production, acquisition, management and dissemination of intellectual assets in all its research and development activities.

III. Definitions

"Intellectual Assets" ("IA") means any results and/or products of research and development activities, of any nature whatsoever (including, but not limited to, knowledge, technologies, and know-how), whether or not they are or can be protected by intellectual property rights.

"Intellectual property rights" ("IP rights") means ownership rights over intellectual property (or applications thereof), whether registered or not, granted in any jurisdiction, including but not limited to, copyright and related rights, database rights, patents, industrial design rights, plant variety rights, trade secrets, trademarks and service marks, geographical indications, and trade secrets.

IV. Principles of management of IA

4.1 AfricaRice is committed to make the IA that it develops accessible and as widely disseminated, adopted and utilized as possible in accordance with its Mission.

4.2 AfricaRice shall manage its respective IA with integrity, fairness, equity, responsibility, and accountability, wherever it operates.

4.3 AfricaRice requires all recipients and users of any of the IA that it creates and develops to acknowledge AfricaRice as the source of such IA and, when necessary, to request for its authorization. Likewise AfricaRice will take every step to respect third parties' IP rights and will acknowledge and obtain permission for the use of third parties' IA.

4.4 AfricaRice shall ensure that, to the extent permitted by applicable law, the IA generated by its staff, visiting scientists, consultants, students, and any other person operating on its behalf, shall be vested in AfricaRice.

4.5 AfricaRice considers that excluding others from accessing its IA is contradictory to the principle of global accessibility and thus to achieve its Mission. For this reason, it will carefully consider how to manage the IA that it generates and, whether to acquire any rights over them.

4.6 AfricaRice may decide that in certain circumstances the acquisition of rights over the IA that it generates will enable it to better achieve its Mission by avoiding misappropriation and misuse by others or because it will enable to enhance the scale or scope of impact of its IA on target beneficiaries.

4.7 AfricaRice may grant limited exclusivity for commercialization of its IA that is limited in its duration, territory and/or field of use if this is necessary for the further improvement of IA or to enhance the scale or scope of impact on target beneficiaries.

4.8 AfricaRice will only grant limited exclusivity described in 4.6 above if such agreements ensure continued accessibility of the IA for non-commercial research and in the event of a national or regional food security emergency.

4.9 AfricaRice may enter into agreements for the acquisition and use of third party IA that restrict the global accessibility of the products/services resulting from the use of such IA for commercialization, research and development provided that:

(a) they are, to the best of their knowledge, unable to acquire equivalent IA from other sources under no or less restrictive conditions;

(b) the products / services that are intended to result from the use of such third party IA will further the Mission of AfricaRice; and

(c) AfricaRice shall use its best efforts to ensure that such third party IA is only used in relation to, or incorporated into, such intended products/services.

4.10 In relation to 4.9, AfricaRice shall use its best endeavours to ensure that it has full freedom to operate for all the activities that it carries out, and to secure, where necessary, appropriate licenses in accordance with this Policy.

4.11 AfricaRice shall comply with all terms set out in its contractual arrangements with third parties.

4.12 AfricaRice shall operate in full respect of indigenous and local communities' IA and use such IA in accordance with principles of benefit sharing.

V. Additional principles with respect to specific categories of IA

Germplasm

5.1 AfricaRice holds in trust an invaluable collection of rice germplasm that it has assembled over several decades through collaborative collecting missions with national programs in Africa or through donation by national programs, individual farmers, and scientists for safety, duplication, and/or storage purposes. AfricaRice reaffirms its continuing commitment to its 1994 agreement with FAO (under which the Center holds designated germplasm in trust for the benefit of the international community, particularly developing countries).

5.2 AfricaRice shall comply with all relevant international laws and treaties concerning genetic resources as well as with the laws of those states where it operates.

5.3 AfricaRice will manage the designated germplasm that it holds in trust for the benefit of the international community according to the terms of its agreement with the Governing Body of the Treaty. As a result of the Treaty, AfricaRice will not claim any legal ownership, including IP rights, over designated germplasm under the agreements with the Governing Body.

5.4 AfricaRice will make available for purpose of research, breeding and training for food and agriculture the following material under the terms of the Standard Material Transfer Agreement ('SMTA') adopted by the Governing Body of the Treaty:

(a) All Plant Genetic Resources for Food and Agriculture (PGRFA) held 'in trust' by AfricaRice in genebanks and placed within the purview of the Treaty under the 2006 agreements between AfricaRice and the Governing Body of the Treaty;

(b) All material received by AfricaRice under the SMTA or under another legal instrument that allows AfricaRice to redistribute the material under the SMTA; and

(c) Breeding lines, genetic stocks and other materials developed or improved by AfricaRice that incorporate material described in sub-sections (a) and (b) above.

5.5 Notwithstanding 5.4(c), AfricaRice's developed/improved materials may be identified as PGRFA under development and AfricaRice may impose additional conditions to those set out in the SMTA provided that such additional conditions are consistent with the SMTA.

Databases, Publications and other Copyrightable Material

5.6 AfricaRice encourages the use and dissemination of its publications, databases, and other copyrightable material ("Material").

5.7 Subject to the principle of clause 5.6 above AfricaRice shall, to the extent possible, provide access to its Material in a timely manner and under a suitable open access license mechanism.

5.8 AfricaRice will give authors and/or creators of any Material appropriate attribution in order to acknowledge their intellectual contribution.

VI. Implementation

6.1 This Policy does not intend to replace the Consortium IA Policy but shall be read in conjunction with it.

6.2 This Policy will apply to all of AfricaRice's activities, programs and offices.

VII. Effective Date

This Policy is effective from xx March 2012 and will remain in force until superseded, canceled, or suspended in writing by the authority of the Board of Trustees of AfricaRice.

ANNEX V

Implementing the 2011 – 2020 Strategic Plan

Rice consumption in Africa is increasing rapidly because of changes in consumer preferences and urbanization. In 2009, the continent imported one-third of what is available on the world market, costing an estimated US$ 5 billion. As witnessed by the food crisis in 2008, this is a very risky, expensive and unsustainable situation, and it may lead to severe food insecurity and civil instability in some African countries. Soaring and highly volatile rice prices and relatively low levels of global rice stocks are predicted to remain the norm over the next 10 years. However, Africa has the human, physical and economic resources to produce enough rice to feed itself. This document presents a Rice Research for Development Strategy to realize Africa's tremendous rice potential. It has been carefully designed to contribute to the achievement of the Millennium Development Goals in Africa —notably MDG1 (halving poverty and hunger), MDG3 (promoting gender equality and empowering women) and MDG7 (greater environmental sustainability). The strategy is aligned with the Comprehensive Africa Agriculture Development Programme (CAADP), in particular pillar IV which aims to improve agricultural research and systems to ensure successful uptake of appropriate new technologies.

The critical challenge facing the African rice sector is to enhance performance in production, processing and marketing to respond to a major concern to be turned into an opportunity: the growing demand for rice as a preferred staple. The research- for-development strategy presented here pursues the following vision of success reflecting the CGIAR system-level outcomes.

Improving food security

By 2020, sub-Saharan Africa's (SSA's) rice paddy production will have increased from 18.4 million tonnes (Mt) (11.9 Mt of milled rice) in 2010 to 46.8 Mt (30.4 Mt of milled rice), with the productivity-enhancing research and development activities described in this strategy. Without this productivity-enhancing R&D, the baseline levels of paddy production under the 'baseline scenario' (projecting each country's production on the basis of 1980-2010 growth rates) would be 32.3 Mt (21.0 Mt milled equivalent) in 2020. Thus, the research and its associated technology dissemination activities proposed in this strategy will

result in a rice production increase of 14.5 Mt of paddy (9.4 Mt of milled rice), corresponding to a 44.9% increase over the baseline scenario.

Aggregated rice consumption is projected to rise from 19.8 Mt in 2010 to 35.0 Mt by 2020 under the baseline scenario (using each country's rice consumption growth rate for the period 1980-2010). Thus, under the baseline scenario (i.e. no R&D), SSA would import roughly 14.0 Mt of milled rice in 2020 to fill the gap between projected consumption and projected production. However, with the proposed productivity-enhancing R&D and the production increase it will generate, imports will be only 4.6 Mt in 2020 corresponding to a reduction of 67%. This should lead to an increase in the continental rice self-sufficiency ratio from the current level of 60% to at least 87% in 2020 (compared to 60% in the baseline scenario).

In 2010, no SSA country was self-sufficient in rice, but as a result of the R&D proposed in this strategy, at least 10 countries will reach self-sufficiency with surplus rice (Chad, DRC, Guinea, Liberia, Madagascar, Mali, Rwanda, Sierra Leone, Tanzania and Uganda). The self-sufficiency ratio will significantly increase for all other SSA countries by 2020. Furthermore, many more countries should reach near rice self-sufficiency (over 90%) by 2020.

Reducing rural & urban poverty

The estimated potential impact of research targeted to reduce the yield gap and increase grain quality through better crop management and postharvest practices, and to raising the yield potential through higher-yielding varieties is an annual income benefit of $1.09 billion for rice farmers, corresponding to a global cumulative 5%-discounted benefit of $6.8 billion over the 7-year period 2014-2020. As a consequence, at least 2.3 million people in rice-farming households will be lifted above the $1.25 poverty line (in 2005 purchasing power parity, PPP) in 2014. This number will grow to 4.2 million people lifted out of poverty by the end of 2020.

As a result of increased rice supply, domestic prices in major rice-producing countries in SSA are expected to be on average 7.2% lower than the baseline level.* Translating this price effect, it is expected that annual expenditure on rice by non-rice-farming consumers under the $1.25 poverty line will be reduced by $650.6 million (PPP) by 2020 (holding consumption constant), corresponding

to a global cumulative 5%-discounted benefit of $3.3 billion. This will equate to 6.8 million urban and rural rice consumers (excluding rice-producing farmers) being lifted above the $1.25 poverty line in 2020.

By improving rice processing technologies and reducing losses, it is expected that the quality of locally produced rice will be increased, generating more revenue for rice processors and rice traders. These benefits are estimated at $64.2 million annually (cumulative 5%-discounted, $323.7 million) for rice processors and $30.8 million annually (cumulative 5%-discounted, $155.3 million) for rice traders.

In total, the potential impact of research across all value-chain actors (farmers, consumers, processors and traders) will be $1.8 billion annually, with a global cumulative 5%-discounted benefit of $10.6 billion over the 7-year period 2014-2020 for 38 SSA rice-producing countries. At least 11 million people will be lifted out of poverty in 2020 as a result of these income benefits, thus reducing the overall number of poor by 4%.

The costs of the R&D include the Global Rice Science Partnership budget for Africa for the period 2011-2015 and a forecasted value for 2016-2020 — about $420 million (cumulative for 2011-2020). It also includes indirect costs of dissemination of the technologies (estimated from various past projects at about $1.2 billion). The financial rate of return for all research activities within the period 2011-2020 is estimated at 84% and the economic rate of return (assuming 20% price distortion) is 60%, showing that rice research in Africa is financially and economically profitable. The share of rice in the agricultural gross domestic product of African countries should increase from the current 3.82% to 5.19% in 2020. This corresponds to a 26.5% increase from the baseline scenario, which assumes that the agricultural GDP will maintain its current trend. With R&D on rice in Africa, it is expected that the agricultural GDP growth will increase from the baseline scenario value of 2.5% to 2.65%. Thus, R&D on rice in Africa will contribute to achieving the Comprehensive Africa Agriculture Development Program (CAADP) target of 6% per year agricultural growth.

Reducing under nutrition

It is anticipated that the improved purchasing power generated by the uptake of improved rice technologies will help undernourished people in Africa to be able to afford to reach caloric sufficiency and more balanced diets. As a result of increased availability and reduced prices, 5.6 million undernourished people will reach caloric sufficiency in SSA (1.2 million in rice-farming households and 4.4 million in non-rice-farming consumer households), reducing the number of food-insecure by 6%. Sustainable diversification of rice-based systems will provide greater access to more diversified agricultural products, with a positive influence on human health and nutrition. Quantification of these benefits will rely on quality baseline data and well-designed impact studies.

Sustainable management of natural resources

By 2020, water, nutrient and labor efficiencies will have been improved in high-input systems through the introduction of mechanization, precision crop management options and water-saving and water-harvesting techniques, thereby reducing yield gaps. Uptake of ecological intensification and diversification options in currently low-input rainfed systems will have enhanced production levels in a sustainable manner. New rice-based production systems 'ready for the future' will have been developed with farmers to respond to the challenge of climate change and increasing water scarcity across rice ecologies. Africa's contribution to the collection, preservation and characterization of the genetic diversity of rice species will have substantially increased and been made available to all. Quantification of these benefits will rely on quality baseline data and well- designed impact studies.

Capacity development

By 2020, research capacity in Africa will have increased through PhD and MSc fellowships (at least 30 per year, of which at least one-third will be awarded to female candidates, a percentage that was already achieved by AfricaRice in 2010) and training in specific areas through internships and group training. Every year, a minimum of 100 technicians from national agricultural research systems (NARS), NGOs and development projects working on rice will be involved in 1-2 month rice-production training courses. These trained technicians will act as trainers for farmers and other rice value-chain stakeholders in their home

countries. These capacity-building efforts will help create a new generation of rice research and extension professionals, at least 30% of them women. They will profit from a conducive working environment and appropriate budgetary provisions through increased government support and links with rice R&D projects and initiatives.

Through a priority-setting process involving consultations with stakeholders and rice experts, and information based on household surveys and national statistics that began in June 2008, the following seven research-for-development (R4D) Priority Areas (PAs) were identified:

1. Conserving rice genetic resources and providing smallholder farmers with climate-resilient rice varieties that are better adapted to production environments and consumer preferences

2. Improving rural livelihoods by closing yield gaps and through sustainable intensification and diversification of rice-based systems

3. Achieving socially acceptable expansion of rice-producing areas, while addressing environmental concerns

4. Creating market opportunities for smallholder farmers and processors by improving the quality and the competitiveness of locally produced rice and rice products

5. Facilitating the development of the rice value chain through improved technology targeting and evidence-based policy-making

6. Mobilizing co-investments and linking with development partners and the private sector to stimulate uptake of rice knowledge and technologies

7. Strengthening the capacities of national rice research and extension agents and rice value-chain actors.

Priority Areas 1-5 will result in new rice technologies that will make a positive, sustainable and lasting difference in the livelihoods of farmers and other rice value-chain actors. Through PA6, links will be established with large rice-sector development initiatives and the private sector to obtain co-investments to

stimulate uptake of appropriate rice knowledge and technologies and to obtain feedback on technology performance. PA7 addresses the desperate lack of trained capacity across the rice value chain and in rice R&D in Africa. Across PAs, there is a need for working closely with women farmers, researchers, extension agents and agribusiness women in order to maximize efficiency, effectiveness and impact.

This rice R4D agenda will be implemented through a range of partnerships from strategic upstream research to linking with development partners to achieve impact on the ground. As an association of currently (November 2011) 24 African member states, and recognized by the African Union as the Center of Excellence for Rice Research in Africa, the Africa Rice Center (AfricaRice) is best placed to coordinate these rice R4D efforts across the continent over the next decade.

AfricaRice is positioning itself within the wider development and innovation context for sub- Saharan Africa as advocated by the CAADP of the New Partnership for Africa's Development (NEPAD) and will be contributing to Pillar IV, led by the Forum for Agricultural Research in Africa (FARA). AfricaRice will strengthen its working relationships with FARA and the sub-regional research organizations (CORAF/WECARD, ASARECA, CCARDESA) as the implementing agency and catalyst for rice-based R4D in Africa. This will be facilitated by the fact that AfricaRice is an association of member states, and by nature a shared resource for member countries.

AfricaRice will act as both a developer and broker of rice knowledge, and will tap sources from within and outside the African continent, with each partner contributing to the rice R4D agenda according to its comparative advantage.

Most of this strategy (with the exception of PA3) will be implemented under the umbrella of the Global Rice Science Partnership (GRiSP), a CGIAR Research Program (CRP), with other CRPs contributing to specific PAs. AfricaRice is one of the architects of GRiSP, the first CRP to be approved by the Fund Council and the CGIAR Consortium Board (November 2010); it is led by the International Rice Research Institute (IRRI), based in the Philippines. AfricaRice is responsible for implementing GRiSP in Africa. Implementation will also occur through the CRP led by the International Water Management Institute (IWMI) on 'Durable solutions for water scarcity and land degradation' (PA3) and the

CRP on 'Climate change, agriculture and food security' led by the International Center for Tropical Agriculture (CIAT: PA2 and PA3). It is expected that links will be established with the CRP on 'Policies, institutions, and markets to strengthen assets and agricultural incomes for the poor' led by the International Food Policy Research Institute (IFPRI: PA5) and the CRP on 'Integrated systems for the humid tropics' led by the International Institute of Tropical Agriculture (IITA: PA2).

Focusing on GRiSP, besides AfricaRice, IRRI, CIAT and the other co-architects — *Centre de cooperation international en recherche agronomique pour le developpement* (CIRAD), *Institut de recherche pour le developpement* (IRD) and Japan International Research Center for Agricultural Sciences (JIRCAS) — collaboration will be established with emerging strong national research systems, most notably those from Egypt (RTTC), China (CAAS), Brazil (EMBRAPA) and India. Advanced research institutes and universities in developed countries will also play a key role, mostly in conducting basic research that is beyond the capacities and comparative advantages of CGIAR centers and other partners. Collaboration will also be established with international organizations and centers such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), CABI and the International Center for Development-oriented Research in Agriculture (ICRA) in PA6 and PA7. AfricaRice will ensure —through its active role in the CRPs — that global knowledge is mobilized to respond to the challenges and opportunities in the seven PAs that form the rice R4D agenda for Africa.

Key partners to implement this strategy will be the NARS in Africa through their active involvement in research priority setting and implementation of R4D activities. Collaboration will be reinforced through the establishment of Task Forces, responding to certain priority areas. Task Forces are collective R4D efforts on critical thematic areas in the rice sector, based on the principles of sustainability and buildup of critical mass at the national and regional levels. AfricaRice will facilitate these Task Forces. The following Task Forces have been or will be established:

- Rice Breeding Task Force (PA1)
- Rice Agronomy Task Force (PA2 & PA3)
- Rice Processing & Value Addition Task Force (PA4)

- Rice Mechanization Task Force (PA2, PA3, PA4)
- Rice Policy Task Force (PA5)
- Gender in Rice Research & Development Task Force (cross-cutting).

Collaboration will also be established with national rice centers of excellence within the framework of the World Bank-funded West Africa Agricultural Productivity Program (WAAPP) in Mali and the East Africa Agricultural Productivity Program (EAAPP) in Tanzania.

Task Force activities and much of the work in the CRPs will be thematic in nature, contributing to PAs 1-5, but research outputs will be integrated in 'Rice Sector Development Hubs' ('good practice areas') to achieve development outcomes and impact. Rice Sector Development Hubs involve large groups of farmers (1000-5000) and other value-chain actors, such as rice millers, input dealers and rice marketers. These partnerships will be testing grounds for new rice technologies and new institutional arrangements (contracting) between value-chain actors, and will follow a 'reverse- research approach', i.e. starting from the market. Partners will pursue a 'proof of concept' approach to rice value-chain development, productivity improvement and sustainable management of natural resources in rice-based systems.

The objective is to produce rice or rice-based products that respond to consumer preferences in urban and rural markets in quantities that are of interest to rice traders, who would usually import such products. Hubs will represent key rice ecologies and different market opportunities across sub- Saharan Africa and will be linked to major national or regional rice development efforts to facilitate broader uptake of rice knowledge and technologies. Care will be taken that women and youth are not marginalized, but on the contrary strengthened in the process of rice value-chain development. At least 30 Rice Sector Development Hubs will be established across Africa by 2020.

Civil society organizations (CSOs) such as *Reseau des organisations paysannes & de producteurs de l'Afrique de l'Ouest* (ROPPA) and East Africa Farmers' Federation (EAFF), and major NGOs such as Catholic Relief Services (CRS), Sasakawa Global 2000 (SG2000) and Songhai will be involved in technology adaptation and wide-scale diffusion in and beyond the Rice Sector Development Hubs, and provide feedback to researchers and policy-makers on technology performance, and research and investment priorities. CSOs have

a comparative advantage in operating at the grassroots level and are thus well placed to ensure full participation of farmers and other value-chain stakeholders.

Collaboration with the private sector may involve contributions to strategic and applied research in one of the PAs, or to 'proof of concept' work in the Rice Sector Development Hubs. This will include companies involved in farm inputs (seeds, farm machinery), credit provision, processing and marketing. Private companies will also serve as technology diffusion channels. This will require new formal research partnerships and contractual relationships between the public and private sectors, and due consideration of issues related to intellectual property rights.

Close collaboration will be established with regional forums and economic communities with a major interest in development of the rice sector. These include FARA at continental level, West and Central African Council for Agricultural Research and Development (CORAF/WECARD), Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA) at sub-regional level, and higher-level political bodies and development initiatives targeting food security and poverty, in particular the African Union (AU). Active linkages will be established with the regional economic communities (RECs) to assist with policy formulation and building of rice research and extension capacity, including the Economic Community of West African States (ECOWAS), the Union *Economique et Monetaire Ouest-Africaine* (UEMOA), the East African Community (EAC) and the Economic Community of Central African States (CEMAC).

Links will also be established with international and regional development funds and banks and donors, in particular donors in the Coalition for African Rice Development (CARD, i.e. AfDB, IFAD, JICA and the World Bank), USAID, *Banque Ouest Africaine de Developpement* (BOAD) and the World Food Programme (WFP). Many of these directly contribute as donors to the R&D activities that will be implemented under this strategy. Rice Sector Development Hubs will, as much as possible, be established in regions that benefit from large-scale bilateral or multilateral investments of these agencies in rice-sector development to build capacity and to facilitate transforming research outputs into development outcomes and impact.

Well-designed monitoring and evaluation systems will accompany the implementation of this strategy. Models and tools used for priority setting will be continuously maintained and improved using information from monitoring and evaluation systems, adoption studies and ex-post impact studies, enabling regular reviews of strategic choices made and turning this strategic plan into a living document.

ANNEX VI

Rice Breeding Task Force and the New PVS Protocol

1. Introduction

AfricaRice's mission is to contribute to food security and poverty alleviation in sub-Saharan Africa (SSA), through research, partnerships, capacity strengthening and policy support to rice-based systems. One way of achieving this goal is to revive the Task Force mechanism, a collaborative approach to rice breeding, which has been successful in the past.

2. Africa Rice Breeding Task Force

The task force concept was introduced by AfricaRice (then WARDA) in the 1990s to achieve critical mass in thematic areas in the rice sector, based on principles of sustainability, building of critical mass, and ownership by the national agricultural research systems. Due to a lack of funding, this system ceased to function in 2003. This cessation has severely disrupted the ability of AfricaRice to collaborate and plan activities with its national agricultural research systems (NARS) partners.

The second Africa Rice Congress held in Bamako in March 2010 strongly endorsed the task force concept and asked AfricaRice to facilitate and re-animate these task forces.

Table 1: History of Partnership

1975:	IRTP (International Rice Testing Program)
1981:	WARDA Coordinated Varietal Trials
1990:	Three (3) Africa Rice Working Groups: Training, Breeding, and Natural Resources Management. These Working Groups led to the establishment of the Breeding Task Force.
1991:	IRTP became INGER
1991:	Breeding Task Force: Instrument of cooperation between breeders in West and Central Africa (WCA).
1996:	CORAF/WECARD Rice Research Network (Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Mali, Sénégal, and Togo).
2000:	ROCARIZ: Merger of Task Forces and the CORAF/WECARD Rice Research Network
2010:	The Africa Rice Congress called for the revival of the successful Task Force approach, introduced by AfricaRice in the 1990s.

Rice Breeding Task Force in Africa

The Rice Breeding Task Force in Africa (BTF) is a partnership between NARS and International Agricultural Research Center (IARC) rice breeders in SSA to strengthen capacity for varietal development, evaluation, varietal release, adoption and seed systems in SSA. It also aims to develop long-term strategies on national and regional issues, problems and opportunities in rice breeding.
The BTF started in 2010 with funding from the Ministry of Finance, Japan. The main objective of this comprehensive project, is to accelerate the development and deployment of the next generation of elite rice varieties for major production systems in SSA.

The BTF consists of an Africa-wide collective research for development effort on rice, bringing together national and international rice researchers in one regional group.
The specific objectives are to:

- Adopt a systematic collaborative approach to rice breeding
- Facilitate access of African rice breeders to new materials
- Stimulate rice germplasm evaluation across the continent
- Shorten the time needed for the "development and release" of new rice varieties for major production systems in SSA

The BTF enhances collaboration with NARS breeders for improving the adaptability of new germplasm to farmers' growth conditions and consumer preferences, through:

- Early involvement of NARS breeders and farmers in the varietal development and testing process
- More effective and faster variety testing and release mechanisms

The BTF was launched at Kirundo in Burundi, and Segou in Mali in April and June 2012, respectively. Forty-three (participants including national agricultural research and extension systems (NARES) partners attended the Burundi meeting while 26 attended the Mali launch, Two members were appointed to assist the coordinator - one to represent West and Central Africa and the other for East and Southern Africa. Coulibaly M'bare from Mali, West Africa, and Jimmy Lamo from Uganda, East Africa (were unanimously appointed as Chair and Vice Chair.

- Four (4) Mega Environments (ME) and 22 key sites for those ME have been identified (rainfed lowland, irrigated lowland, rainfed upland, high elevation and mangrove swamp).

This multi-environment testing (MET) network, established in 2010, is now fully operational with regional trials conducted in 22 sites (upland 5, irrigated 6, lowland 6, high elevation 4 and mangrove 1) and national trials in 27 sites (upland 4, irrigated 2, lowland 18, high elevation 1, and mangrove 2). For the regional trials, 490 lines nominated by various institutions were evaluated. For the national trials, 89 lines selected from the regional trials in 2010 were evaluated.

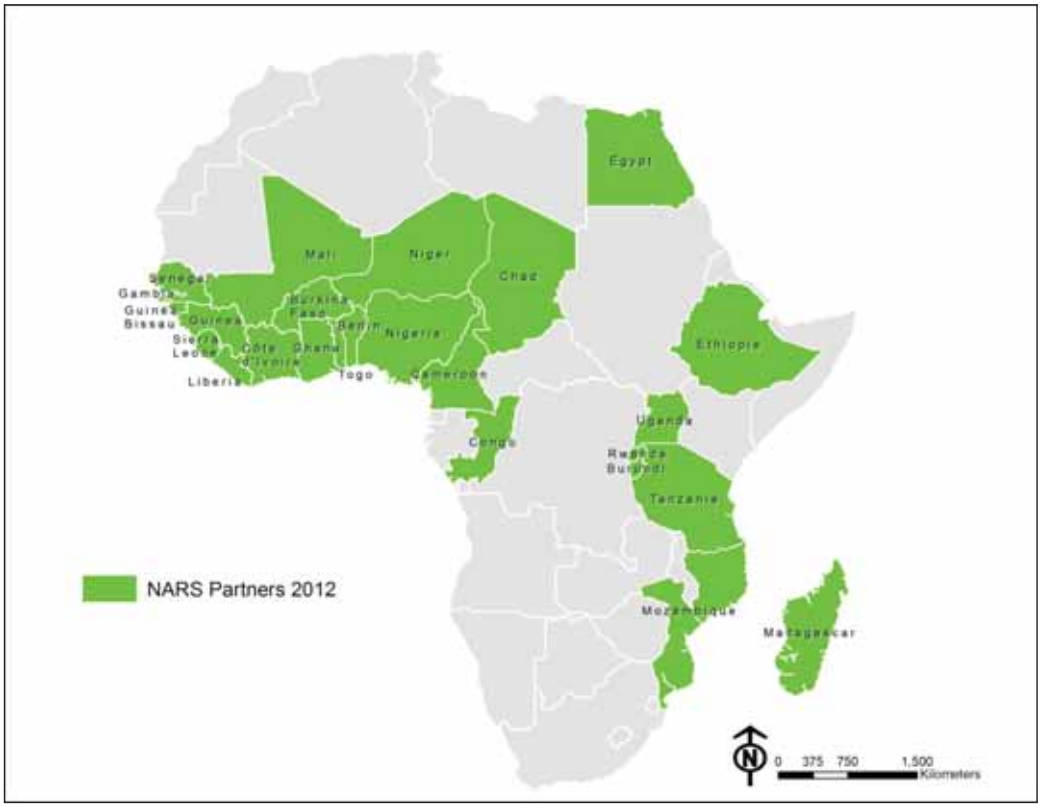

Figure 1: Countries involved in Breeding Task Force activities

Standard protocols for five mega-environments (upland, lowland, irrigated, mangrove and high elevation) and seeds were dispatched to the key sites in 17 countries (Benin, Burkina Faso, Burundi, Chad, Côte d'Ivoire, The Gambia, Ghana, Guinea, Madagascar, Mali, Mozambique, Nigeria, Senegal, Sierra Leone, Tanzania, Togo and Uganda) in 2011 and an improvement in varietal nomination was observed across the five mega-environments. The percentage of nominations per partner for 201 regional trials was 39%, 34%, 14%, and 13% for CIAT, AfricaRice, IRRI and the NARS, respectively.

The first annual meeting of the BTF was held from 11 to 13 May 2011 in Cotonou, Benin. The workshop was organized to initiate discussions for the development of a reference document for the project. There were 47 participants, including NARES partners from 35 African countries.

The second annual meeting was organised from 24 to 27 April 2012 in Cotonou, Benin, to initiate discussions for the development of a reference document for the project. There were 40 participants. The main decision was the change of nomenclature of the MET (Table 2).

Table 2. Principles of multi-environment testing (MET) conducted by the Africa-wide Rice Breeding Task Force

Trial Phase	Characteristics of trials	Site/ Country	Lines in trial	Exp design	Number of lines to advance	Evaluator
MET 1	Evaluation of lines nominated by breeders	1	About 100 lines	Alpha lattice with 3 replications	About 30	• NARS breeders
MET 2	Evaluation of lines selected in MET 1	1	About 30	Alpha lattice with 3 replications	About 10	• NARS breeders • Farmers • VRC members • Other stake holders
MET 3	Evaluation of lines selected in MET 2 by NARS breeders	3	About 10 best lines	Alpha lattice with 4 replications	1~3 lines Recommendation for release	• NARS breeders • Farmers • VRC members • Other stake holders
	Evaluation of a few lines selected in MET 2 by farmer	50	3 lines among 10	No replication		

VRC = varietal release committee; NARS = National agricultural research system.

Three criteria are used to advance lines:

1st criterion

i. Yield: higher yield

2nd criterion

i. Stresses : lowest scores

3rd criterion

i. Maturity: between the shortest and the longest duration checks
ii. Plant height: between the shortest and the longest checks

The others traits will be used to prepare passport data (Table 6)
The following web sites have been developed to share information and documents within the BTF and with the public:

- http://www.africarice.org/afribreed/ :
  - Share information and documents within the BTF and from the BTF to the public
  - Jointly write documents online
  - Plan activities and share calendars
- Public. http://www.africarice.org/afribreed :
  - The users will be able to see general information only/.
- Members. http://www.africarice.org/afribreed/
  The BTF national focal points can view, add, delete, and modify any section of the site through “Members-Login”.

Monitoring tours

Three monitoring tours were conducted in Burkina Faso and Mali in 2010 (rainfed lowland ME), Mali and Guinea in 2011 (upland ME) and Rwanda and Burundi in 2012 (high elevation ME). Breeders from Mali, Guinea, Burkina Faso, Rwanda, Burundi, Togo, Madagascar, and Uganda, the chair and AfricaRice scientists participated.

Figure 2: Breeding Task Force trial sites in 2012

Capacity building

Rice Breeding Courses

2010: To enhance participants' knowledge and skills in the effective application of the principles of experimental designs - 14-17 December 2010, Cotonou.

2011: To present data collection techniques with particular emphasis on the correct analysis of data arising from designed experiments - 12-16 December 2011, Cotonou.

2012: To develop the next generation of rice breeders adept in using modern tools for enhancing the precision and efficiency of their breeding programs -: French speaking countries: 30 April – 4 May 2012 Cotonou; English speaking countries: Saint- Louis, Senegal 29 May- 5 June 2012).

Integrated Protocol for Participatory Varietal Selection (PVS)

About 80% of rice production in Africa is in the hands of small-scale farmers and the region's rice yields are very low - about 1-6 tonnes per ha (compared to 5 tonnes in Asia). Today, rice is the most rapidly growing source of food in Africa. It is grown and consumed in about 40 countries on the continent.

Participatory breeding involves all stakeholders (in particular farmers) in the value-chain in the definition of breeding objectives, implementation of the breeding process, and varietal development. In other words, it is decentralized breeding, coupled with the involvement of farmers early in the process. Participatory breeding is thus an efficient method that can be adapted to species cultivated in a range of biophysical as well as socio-economic conditions, and which takes into account the needs and knowledge of farmers.

Table 3: Participatory approaches in plant breeding and levels of farmer involvement

S/No	Participatory approaches	Level of farmer involvement
1	Participatory plant breeding (PPB)	Choice of parents and involvement from segregation stages
2	Participatory varietal selection (PVS)	On-farm tests of fixed lines (varieties)
3	Participatory crop improvement (PCI)	In all crop improvement processes (breeding, seed supply and agronomic practices)
4	Non-participatory decentralized varietal improvement	Limited involvement; varietal tests conducted on farms by breeders
5	Centralized participatory varietal improvement	Involvement in varietal tests on-station
6	Centralized non-participatory varietal improvement	No farmer involvement
7	Decentralized varietal and environmental improvement	On-farm varietal tests in hotspots for biotic stresses (e.g., diseases, insects, Striga, weeds) with farmer involvement

The objective of participatory breeding is to ensure that the research undertaken meets the needs of farmers. Scientists work with farmers and the majority of trials are conducted in farmers' fields. Rather than play a secondary role, farmers are full partners in the process. In fact, farmers frequently take the lead

and compare their existing cultivars with the material provided by breeders. Since farmers' varieties are adapted to local conditions, the results are often more convincing than for conventional breeding. This approach provides the foundation for a dynamic conservation and breeding process.

Participatory breeding covers the full cycle of development and research activities related to plant improvement, specifically:

- Determination of breeding objectives
- Production of genetic variability or diversity
- Breeding within variable populations to develop new materials
- Evaluating these materials (known as participatory varietal evaluation or participatory breeding of varieties)
- Material distribution and
- Seed production and distribution.

The PVS approach also involves the evaluation of existing legislative policies and/or measures, and the development of new provisions, if necessary. Farmers, breeders and other stakeholders (such as varietal release committees, traders, manufacturers, dealers and consumers) are required to play various roles at various stages, but all working together.

PVS Methodology

PVS is a tool for the efficient transfer of improved rice technologies to farmers and is based on a 3-year program:

- 1st year: Farmers are exposed to a range of promising lines and a baseline is survey conducted
- 2nd year: Farmers plant varieties selected in the 1st year on their farms
- 3rd year: Farmers adopt preferred varieties and the impact of the adoption is assessed.

The PVS shortens the time lag between varietal development and release (3 years for PVS / 7 years for conventional breeding). It accelerates the rate of adoption of promising rice varieties developed by researchers and elicits farmers' criteria for choosing/adopting rice varieties and such information is available to the researchers for further refining the technologies (Tables 4 and 5).

Table 4: Conventional breeding

Seasons	Activities	
1-6 7-9 10-11 12-13	Development and selected lines Trials on research Station Multilocation Trials On-Farm Trials	No farmer participation
14	Release of new varieties	Risk to reject varieties Low adoption rate

Table 5: Breeding using Participatory Varietal Selection method

Seasons	Activity	
1-6 7-8	Generation of new improved breeding lines Lines evaluated on-station	
PVS		
9 10 11	1st Year: Farmers evaluate 30-60 lines in a rice garden grown in the village and select lines for evaluation on their own farms in the next season. 2nd Year: Farmers evaluate selected lines and choose lines for a 3rd year of evaluation. 3rd Year: Farmers evaluate selected lines and choose those for adoption.	Farmers have major input into lines selected Can expect high rate of adoption/ impact as lines are selected by farmers

In PVS-1, farmers receive lines much earlier than in conventional breeding where lines are still in on-station testing in season 9.

Village and farmers' selection

The site selection is done as part of common agreement with farmers based on participatory diagnosis.

In the first year, the site of the rice observation nursery (or rice garden) is chosen based on: easy accessibility, proximity to a water source, shelter from damage caused by domestic or wild animals and minimal drying and conservation infrastructure; the site has to be located a reasonable distance from surrounding

villages (a ratio of one site for 5–10 villages within a maximum radius of 5 km from the nursery is generally used). Fund availability also determines the distribution and number of trial points.

There are two levels of farmers' participation in the PVS process: village level and farmers' level.

The participatory varietal selection cycle takes 3 years, including seed production in the dry season (Figure 3). In year 1, an observational nursery is established on a farmer's plot or a plot in the research station. In year 2, the varieties selected by farmers are tested at two levels: multi-location trials or 'mother trials' conducted by scientists with or without farmer collaboration; and scattered tests or 'baby trials' in farmers' fields, which are the responsibility of the farmer and are carried out using farmers' management practices. At this stage the varietal release committee of the ministry of agriculture joins the evaluating farmers and scientists to ascertain the Value for Cultivation and Utilization (VCU) and the Distinction, Uniformity and Stability (DUS), which are the two indices of evaluation prior to varietal release (Registration into the Official Catalog). In year 3, baby trials are repeated by farmers (to account for annual variability in weather) for confirmation and possible extension to other farmers. VCU and DUS are also checked at this stage. At the baby trial level, the observations of both experimenting and visiting farmers are taken into account.

Year 1: Rice Garden

1. Conducted at a representative site in the target area (more than one site if resources permit)
2. 50-60 varieties
3. Alpha lattice design with at least 3 replications
4. Plot size of 1 x 5 m and 40 cm between plots
5. Local crop management practices
6. Agronomic traits and rating for damage by important biotic and abiotic stresses collected
7. Data collection on rice growing environment
8. PVS farmers are invited to visit the rice garden trial at 3 times and rank the varieties (only one replicate randomly selected)
9. From data on agronomic traits and farmers' preference, 10 varieties are selected
10. Seed of the selected varieties is multiplied in the dry season by researchers

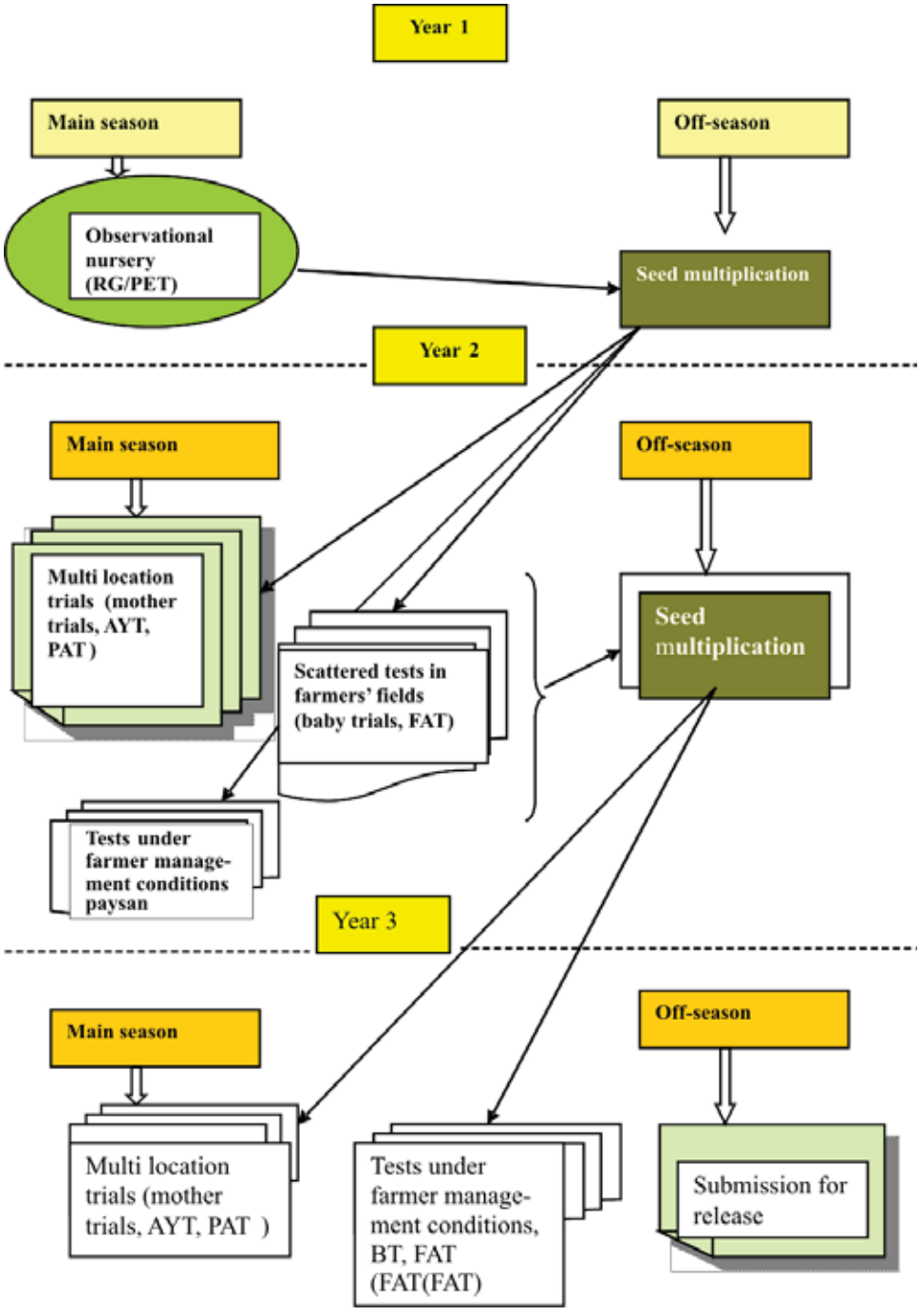

Figure 3: Participatory Varietal Selection (PVS) cycle

Year 2 and 3: Mother trial

From the baseline survey, farmers are grouped into two according to:

i. Use of high or low levels of inputs
ii. Top sequence (lowland) (some examples).

Ten (10) varieties including local checks are planted by researchers in farmers' fields. Non-PVS farmers from PVS villages and farmers from non-PVS villages are invited to visit trials in one PVS village.

Year 2 and 3: Baby trial

Farmers receive 2 kg of each of 3 varieties (1 variety randomly assigned to the farmer, 1 variety selected by the farmer and a check).

The trial is designed and managed by the farmers, with no specific layout or plot size. The only information recorded is on farmers' preference and socio-economic characteristics.

Organoleptic tests

This test is conducted on the 10 selected varieties one month after harvest with a diversified panel: farmers, extension officers and scientists, members of the general public, processing equipment dealers, millers, restaurant owners, male and female traders, and village chiefs. Observations are made on the following grain quality components: hulling capacity (through pounding as well as traditional and modern milling); white grain texture (translucent or chalky); cooking time and water quantity used; swelling capacity; aroma and taste.

Ex-post impact assessment

The same farmers (PVS, non-PVS and observers) surveyed in the baseline study are surveyed again at the end of the third year. In addition to information collected during the baseline survey, observations are made on farmers' experiences with the PVS trials. All data collected are used to estimate potential adoption rates of the new varieties and their impact on farmers' livelihoods and poverty.

Conclusions

The potential advantages of the participatory approach—specifically the fast pace at which the variety gets to the producer, the increase in adoption rates of new varieties, and the biological diversity within the species through the breeding of different types—will only be achieved if new accessions are multiplied to meet the needs of a larger number of farmers. In many countries, this approach is associated with the official recognition of new varieties. This procedure is generally conducted by a committee in the ministry of agriculture, which has the power to accept or reject, on the basis of a scientific report that evaluates the performance, agronomic characteristics, response to diseases and insects and the technological characteristics of new varieties. Because farmers' advice is not taken into account in this registration process, many varieties are cultivated but never registered, while many registered varieties are never cultivated. In both cases, the investment in the production of a variety and the multiplication of its seeds fails to benefit anybody. It has been shown that economic cost incurred in the registration of a bad variety is far lower than the cost incurred in the failure to register a good variety.

The participatory approach to varietal improvement can considerably increase the production efficiency of a variety if farmer acceptance is taken into account as a breeding and registration criterion. In this system, varieties are registered only after the evaluation of their adoption by farmers (Table 5) so that seed multiplication focuses only on those varieties that are needed and accepted by farmers.

3. Varietal Release

A variety introduced into or developed in a country must undergo the following steps and satisfy certain conditions before its release:

(1) Introduction or varietal development;
(2) Selection of breeding lines;
(3) Varietal evaluation;
(4) Varietal release;
(5) Seed production and distribution.

Varietal release is the way by which a dedicated agency orders the release of a new variety in a country - the variety is added to the national catalog with

reliable data on its origin, agronomic and technical values and the breeder holds an exclusive right to seed production and distribution.

The decision to release a variety is taken at one of the meetings of the varietal release committee (comprising different specialists) after a visit to "Demonstration / Verification Plots". The committee will further decide on the registration of the newly released variety in the national catalogue with the following information:

- The trial must have been conducted under the supervision of breeders and other specialists and the data delivered to the varietal release committee for verification.
- The variety adopted by farmers could be registered by the researchers.

3.1 Essential Traits

- Morphological traits should be easy to observe, useful for the identification of the variety and not much influenced by the environment
- Performance, adaptation and utilization of varietal characteristics

Table 6: Variety passport data

Commercial and scientific names
Geographical origin
Genetic origin
Species
Development/breeding date
Collector
Person in-charge of maintenance
Value for cultivation and utilization (VCU)
Distinction, Homogeneity and Stability (DHS)
Resistance to environmental stress
Threshability and resistance to lodging
Length of grain
Width of grain
Hairiness of glume

Grain size
1000 grains weight
Color of grain
Translucency
Amylose content, etc.
Yield (t/ha) (potential and mean)
Yield recovery (milling rate)
Other good and bad traits.

Table 7: Passport data for NERICA 1

1. IDENTIFICATION	
1.1 Synonym: WAB 450 – I - B – P – 38 – HB (NERICA1)	1.5 Genetic nature: Pure line
1.2 Species: Oryza sativa x Oryza glaberrima	1.6 Geographical origin: WARDA, Bouaké
1.3 Varietal type: NERICA	1.7 Development : 1994
1.4 Parents: WAB 56 – 104 / CG 14	
2. AGRONOMIC CHARACTERISTICS	
2.1 Ecology: Upland rice	2.6 Resistance to leaf blast: Moderately resistance
2.2 Days to 50% heading: 70-75 days	2.7 Resistance to insects: Good
2.3 Maturity: [K3] 95-100 days	2.8 Resistance to lodging: Good
2.4 Potential yield: 4500 kg/ha	2.9 Resistance to shattering:
2.5 1000 grains weight: 29.0 g	2.10 Seed dormancy:
2.6 Responsiveness to nitrogen input:	
3. MORPHOLOGICAL CHARACTERISTICS	
3.1 Plant	Axis:
Average height: 100 cm	3.3 Grain
Tillering: Good	Length: 6.9 mm
Basal leaf sheath color: Purple	Width: 2.6 mm

Culm angle:	Size: Medium
Leaf angle: Erect	Lemma color: Light fawn with black apex
Flag leaf angle: Erect	Lemna and palea pubescence:
3.2 Panicle	Awning: Absent
Type: Compact	Apex color: Black/purple
Exsertion: Good	Caryopsis color: White
4. ORGANOLEPTIC AND TECHNOLOGICAL CHARACTERISTICS	**5. CULTURAL PRACTICES**
4.1 Amylose content: 26.6 %	Contact your Country Extension Services
4.2 Milling rate: 63 %	
4.3 Cooking quality: Good	
4.4 Aroma: Perfumed	

3.2. Harmonized Varietal Release Procedures and Registration into the West Africa Plant Varieties and Species Catalog

Two harmonization initiatives of seed regulations were concomitantly initiated by Comité Inter-Etate pour la Lutte contre la Sécheresse au Sahel (CILSS) on the one hand and Union économique et monétaire ouest-africaine (UEMOA) and Economic Community of West African States ECOWAS on the other hand.

A regional workshop held in Accra, Ghana from 27 February to 3 March 2007 brought together representatives of various institutions from 17 member states. It helped to assemble draft texts from ECOWAS-UEMOA and CILSS into a seed regulatory framework common to the 17 member states of the three inter-governmental organizations.

On 8 November 2007, ECOWAS Ministers of Agriculture and Food at their Ouagadougou meeting, recommended the establishment of:

1- A West African Catalog of Plant Varieties and Species (COAfEV), which is the official document listing all the varieties released in member countries and national catalogs.
2- A West Africa Seed Committee (COASem), which enforces seed control, certification and marketing regulations.

On 17 and 18 May 2008, the Sixtieth Ordinary Session of the ECOWAS Council of Ministers met in Abuja and adopted regulation C/REG. 4/05/2008 pertaining to the harmonization of the rules governing quality control, certification and marketing of plant seeds and plants in the ECOWAS countries.

An initial transitional version of COAfEV was developed by listing the released varieties within ECOWAS, UEMOA and CILSS member countries.
To avoid double registration of varieties in COAfEV, it is critical to standardize the evaluation criteria, specifically their DUS and VCU criteria.

Regulation C/REG. 4/05/2008 involves eleven plant species, including 4 cereals (rice, maize, sorghum and millet), 2 grain vegetables (peanut and cowpea), 3 root plants and tubers (cassava, yam and potato) and 2 vegetables (tomato and onion).

3.3. Distinction, Uniformity and Stability (DUS) and Evaluation of Value for Cultivation and Utilization (VCU) of rice varieties

Genetic improvement methodology (Use of conventional methods and technics) involves varietal selection followed by varietal improvement and varietal development.

The variety is an individual plant with certain traits (morphological, physiological, cytological, chemical or other) which keep these traits after multiplication (DUS). The improved variety is a variety which has at least one or several traits with superior performances compared to the former one (VCU). It meets consumer's preferences such quality and quantity.

Evaluations needed for each variety

DUS evaluation is needed to develop the passport data and the varietal identification for catalogue registration. If the number of genotypes for DUS study is few, the recommendation is to use the Randomized Complete Block design with 3-4 replications: plot size 5 m x 4 rows; check for cycle (intermediate, early, very early). For a large number of varieties, the augmented design is recommended; plot size 2 rows x 5m; check for cycle (intermediate, early, very early); evaluate around 100 morphological traits, among them yield. The duration can be 1-2 cropping seasons - dry season (DS) and wet season (WS) at one location - research station.

The variety is a unique genetic entity uniform and stable

Stability: The performance of the variety is the same across years and locations. Example: the potential yield of the variety is the same across many years or across several production zones with the same quality, such resistance, taste, nutritional value, etc.

The variety shows Value for Cultivation and Utilization (VCU)

The Value for Cultivation and Utilization (VCU) of a new variety is determined through multi-location trials conducted with varieties of the same maturity, and registered varieties as checks.

Step after DUS/VCU

The determination of DUS and VCU is followed by seed production and maintenance of the variety. The first step is the production of breeder seed (100% genetic purity), then foundation seed (98% purity) and finally certified seed (90-98% genetic purity).

CONCLUSIONS

Since the inception of the Rice Breeding Task Force in January 2010, progress has been made through implementation of the activities under three objectives: accelerating the development of high-impact varieties in SSA; accelerating rice variety testing, approval, and dissemination in SSA and contributing to building a new generation of rice breeders.

The PVS model presented is a 3-year cycle model, which is reasonable in view of the agricultural development challenges in the target environments. Apart from this, there is no model for the manner in which farmers could participate in varietal selection. The PVS method can speed varietal release.

Varietal release procedures need to be harmonized across countries and updated with regard to new breeding products, particularly mega-varieties. Besides, international organizations should work closely with NARES and other partners on improving policies and harmonizing all required processes and protocols among the different countries to enable faster development, testing, approval and release of new rice varieties.

ANNEX VII

St. Louis Regional Training Center

Introduction

The development of new rice technologies, evaluating their performance and transferring them require the involvement of rice stakeholders and professionals. Training specialists in technology transfer remains an indispensable complement in the research to development continuum, an essential tool for capacity building of rice development actors. By virtue of its mission, AfricaRice has particularly made research in partnership and the development of human resources a priority to build the research capacity of national agricultural research systems (NARS) of member countries.

Besides degree trainings (MS, PhD), AfricaRice is already organizing many short-term training courses for scientists, supervisory staff and a variety of specific training programs (seed production, rice integrated management etc.). For example, in 2009 AfricaRice organized 41 training courses for a total of 789 participants.

The Council of Ministers of the 24 member States of AfricaRice has requested the Center to consider the issue of the weak capacity of rice research and extension by asking the Center to emphasize training of rice specialists in order to strengthen technology transfer. This request was reiterated by AfricaRice National Expert Committee Meeting (comprising General Directors of National Institutes of the 24 member States of AfricaRice) in 2008 and 2009. The last international Africa rice Congress held in Bamako, Mali in March 2010 reaffirmed the urgency to provide technically well trained human resources to back up rice development in Africa.

To reply to this requirement made several times, AfricaRice has made “the capacity development of research and development agents as well as that of rice value chain actors” one of the 7 priorities of its Strategic Plan for the next 10 years (2011 – 2020).

1. The necessity of a Training Facility

To be able to provide short term training, AfricaRice has had to rent facilities such as conference halls and reserve hotel accommodation. Organizing training courses in hotels has a number of constraints. Hotels do not provide the possibility of arranging rooms for practical sessions that are sometimes necessary for certain training courses. Trainees have to be transported to research stations for practicals. Training courses organized in hotels are very expensive with additional logistic problems. Without the institute's own facilities, AfricaRice cannot organize long-term courses (3 to 6 months). Faced with these constraints, it was urgent for the Center to have its own facility dedicated to training. To meet this demand, AfricaRice decided to build an international Training Center.

2. The Training Center project

Establishing a regional training center is an ambitious project. It is very difficult to find donors who would easily accept to invest in the construction of buildings. Although not having all the necessary resources, AfricaRice decided to start the Training Center project with its own funds with the expectation that support from its financial partners would come later. The project started as a result of management's vision to decentralize research and training activities as much as possible by strengthening the sub-regional stations. This is the logic behind AfricaRice's decision to build the training center in its sub-regional office in Saint Louis, Senegal.

A project implementation plan for the short, medium and long term was adopted. The location and the implementation of the project were supported by AfricaRice Management's vision of the future development requirements of the institute. The process started in 2006 with a long-standing request for land from the Senegalese authorities. After long negotiations, AfricaRice finally received in 2010 a 7300 m^2 piece of land in Saint Louis close to Gaston Berger University.

According to the construction plan, two buildings should be erected in the first phase at an estimated cost of US$2 million including equipment. The main building is two storeys. The first floor has two teaching rooms of with the capacity of 30 seats each, a laboratory, computer room, conference hall seating 50 persons, a secretariat and two toilets. The second and third floors have 20 rooms with two beds each (40 beds) and six individual rooms making a

total of 52 beds. The second building is a one-storey construction and contains a restaurant/cafeteria, kitchen and store on the first floor, and a library and three offices on the second floor.

3. Progress report and perspectives

The construction of the Regional Training Center started in January 2011 with the erection of the main building using AfricaRice funds. The building is now complete and only remains the finishing, which will be completed by August 2012. Equipment, furniture and computers need to be acquired and installed for the building to be operational. The construction of the second building (restaurant/cafeteria and offices) will start soon and is expected to be completed by mid-2013. It is expected that the Training Center will be operational, while the additional infrastructure is under construction.

In the search for partners to support the establishment of the Training Center, AfricaRice submitted in 2010 a competitive bid in response to a call by WAEMU/UEMOA for projects to support the development of regional Centers of Excellence within the community (PACER-UEMOA). AfricaRice submitted a competitive bid to be recognized as a Center of Excellence in rice research and training in WAEMU/UEMOA countries. AfricaRice's application was among eight applications shortlisted out of a total of 79 applications. As per the procedure, an expert mission from WAEMU/UEMOA visited Saint Louis to assess AfricaRice eligibility for PACER award. The expert mission was impressed with the quality of the scientific work being conducted at AfricaRice and following a visit to the training center under construction, they rated as satisfactory the Center's commitment to make the regional training center a reality. This resulted in WAEMU/UEMOA Council of Ministers awarding AfricaRice the label of Center of Excellence in rice research and training on 10 June 2012. The label by WAEMU/UEMOA gives AfricaRice the following benefits:

i) For now, WAEMU/UEMOA will support the development of the Training Center with a first grant of FCFA 150 million for two years (2012-2013). The agreement is renewable and the amount can be renegotiated every two years;
ii) WAEMU/UEMOA recognizes that it has now a quality center specialized in rice that can deliver quality research, training in research (at Master, PhD levels) as well as training of rice specialists and stakeholders in the rice value chain. This is an opportunity for AfricaRice to play the role

of the technical arm of WAEMU/UEMOA in rice research and training, with possibilities of mobilizing resources through an AfricaRice-UEMOA partnership.

iii) Reinforcement of AfricaRice's visibility within this sub-regional institution and in its eight member countries.

AfricaRice and its partners (IITA and ICARDA) have just been granted US$62 million from the African Development Bank (AfDB). In agreement with AfDB, a contribution of US$320,000 will be used to complete the civil-engineering works of the second building (restaurant/cafeteria, offices) and to purchase additional equipment.

4. Operation of the training center

At the local level, the training center will be administratively managed by the management of the St.-Louis Sub-regional station with a budget code that includes expenses and receipts of the center. In conformity with the principle of full cost recovery of operational costs, the use of any equipment in the center will be billed at real cost. The center can be used by partners for any training activity as long as there is no conflict with AfricaRice's training calendar and still applying the principle of full cost recovery.

At the Center level (AfricaRice Headquarters), training courses are planned by the Training Coordinator, who will link with the training assistants at the sub-station/regional level. Both coordinators and assistants play a role in the preparation of training modules and programs. Like research program leaders, they prepare the budgets and express their needs for training courses. In view of the additional workload, additional staff will be recruited to reinforce the sub-regional team in managing training activities at the Training Center.

For its operation, the Training Center will use, as a matter of priority, service providers for catering, cleaning, maintenance and security. The Training Center will be used primarily for AfricaRice training activities. However, the center could be used by other institutions, partners for different activities as long as there are no conflicts with AfricaRice's scheduled training programs. By operating this way, the center should be able to be self-financing and achieve its mission in a sustainable manner.

Conclusion

Despite the difficulties encountered, the St. Louis Regional Training Center project is on track. AfricaRice management's vision and initiative to start the project with a small budget has been very beneficial for project implementation. This commitment has created and stimulated commitment from partners (WAEMU/ UEMOA, AfDB), who are now supporting AfricaRice in the implementation of this project.

This regional training center will probably be the only center specialized in rice training in Africa. It could possibly create an appropriate framework for the development of a common platform for rice training between AfricaRice, NARS and Universities in the sub-region.

ANNEX VIII

Feasibility of AfricaRice's return to Côte d'Ivoire

The issue of AfricaRice's return to Côte d'Ivoire is frequently raised during meetings with Government institutions, development partners (namely NGOs, farmers' organizations, the private sector), and financial, and technical partners working in Côte d'Ivoire.

The answer to this issue is essential as it arouses the interest of Ivorian authorities who would like to benefit from AfricaRice's close and sustainable support to attain rice self-sufficiency within the next three years. The challenge is tremendous as Côte d'Ivoire would like to go beyond self-sufficiency and to start exporting rice within the sub-region by 2016. The stated objective is to double the production of milled rice from 750,000 to 1,500,000 tons (NRDS, 2010).

This wish is also shared by several other AfricaRice member states, the Council of Ministers, the Board of Trustees and donors who otherwise wish that the headquarters remain in Côte d'Ivoire. In fact, the country has tremendous possibilities in terms of communication and travel as well as contacts with diplomatic bodies and international institutions. Moreover, AfricaRice's largest station, which is in Cote d'Ivoire, covers a 700 ha area with access to multiple water resources:

- A high throughput dam (maximum height 8 meters, with a capacity of 150 million m^3). It can be used to irrigate 180 ha.
- Experimental fields along the toposequence (upland, hydromorphic area, lowland, irrigation schemes);
- Seed production fields.

The Station also has important infrastructure such as:

- Modern laboratories (13 in total) for AfricaRice's main research disciplines (breeding, biotechnology, entomology, grain quality, physiology, soil physics, soil science, soil chemistry, soil fertility, plant analysis, soil and water, weed science, and agronomy);
- 201 offices and 4 conference or meeting rooms;
- 25 high capacity stores;
- 2 cold rooms for medium term conservation of plant genetic resources;

To plan the return to headquarters, AfricaRice dispatched several consultants to Côte d'Ivoire with the aim of assessing the situation on the ground and to suggest appropriate remedial measures.

It is in this same context that Dr. Eugene Terry, former AfricaRice Director General, is currently in Côte d'Ivoire to examine the latest developments in Abidjan, Yamoussoukro and Bouake. While we wait for his recommendations, we will present a review as well as a synthesis of discussions that were held recently with Ivorian authorities.

Inventory of the situation on the ground

Status of infrastructure and living conditions in Abidjan, Yamoussoukro and Bouake

Security issues that have been of concern in the past, namely the presence of uncontrolled forces, have been mostly solved. Soldiers have return to the barracks and have been replaced in the cities and towns by police officers while the gendarmes are in the rural areas. A few pockets of resistance are noted from time to time in the West but the phenomenon is declining.

The regional administration composed of "préfets" and "sous-préfets", legal officers, medical doctors and teachers have been redeployed to all towns and departments. The security level index as provided by the UNDP is at level 2, which means that security concerns are minor.

With regard to daily life, activities are being restarted little by little, particularly schools, health infrastructure and commerce.

Schools and universities

Several international schools in Abidjan, except the Lycée Jean Mermoz, have resumed (Jacques Prévert for the primary, Blaise Pascal and the Ivorian-Canadian University for high-school). It is the same for specialized schools in Yamoussoukro (INHPB - *Institut National Polytechnique Houphouët-Boigny*,

ESA - *Ecole Supérieure d'Agronomie* (Advanced school of Agronomy), ENSTP - *Ecole Nationale Supérieure des Travaux Publics* (Advanced School of Public Work), ESCAE - *Ecole Supérieure de Commerce et d'Administration des Entreprises* (Advanced School of Marketing and Business), ESI - Ecole Supérieure de l'Industrie (Advanced School of Industry), ESMG - Ecole Supérieure des Mines et de la Géologie (Advanced school of Mines and Geology).

The situation in Bouake, however, is not as good. In fact, both the Lycée Jean Descartes (French school) and American School are still closed.

Concerning Ivorian schools and universities providing academic training, rehabilitation works are being undertaken throughout the country. Schools are expected to resume in September 2012, after having been closed for one and a half years.

Hospitals and clinics

The situation is good but is not yet comparable to the past where complex interventions such as heart surgery could be carried out in the country.

All university teaching hospitals are operational. It is the same for clinics but, they are however, are not well patronized. The major clinics that are functioning are:

- P*olyclinique internationale Sainte Anne Marie - PISAM, Polyclinique de l'Indenie and the Polyclinique des II Plateaux in Abidjan;*
- *Clinique médicale le Nanan – CMENA, Clinique Sainte Madeleine and the Clinique Médicale de Dr Toure in Bouake.*

Pharmacies are functioning relatively well. Nevertheless they are competing with the increasing use of traditional medicine and drugs sold in the streets.

Banking institutions

Majors local banks (SGBCI, BHCI, BFA, BNI, BICICI, …) and international banks (ECOBANK, CITIBANK, Standard Chartered Bank, UBA,……) are open and operating without any difficulty.

Accommodation

Accommodation is not an issue in Abidjan but rental conditions are getting more and more difficult. Often housing advance payments of 6 to 8-months are required.

In Yamoussoukro, there is a serious shortage of accommodation. However, it is important to point out that an offer has been made by the management of ENSA which is ready to put office space and accommodation at the disposal of AfricaRice .

In Bouake, houses have been completely vandalized and have to be repaired.

Markets and supermarkets

Markets and supermarkets are operating in the three cities. The following supermarkets are open:

- HAYAT, Trade Center, Froid industriel, SOCOCE, CASH Center in Abidjan;
- CDCI, Bon Prix, Super Mag in Yamoussoukro;
- RACHAD, King Cash, SOCOCE in Bouake.

Mbe station/Bouake

The Mbe station is well maintained and ready for use for experiments and research trials. Fire breaks have been cleaned and the lawn maintained regularly. Offices are properly cleaned. Concerning lab equipment, they will need to be replaced since they have fallen into disrepair having not been used for long.

For the moment, most activities on the station are limited to the production of breeder's seed of the main varieties for AfricaRice to support national agricultural research programs (build security stocks, and maintain a window of basic collections).

In addition to the station in Mbe, AfricaRice has a Guesthouse with 12 rooms and a liaison office in Bouake.

Progress in discussions with Ivorian authorities

Over the last three years, AfricaRice officers have held multiple meetings with Ivorian authorities from the following ministries and departments:

- The Ministry of Higher Education and Scientific Research;
- The Ministry of Agriculture;
- The Ministry of Foreign Affairs;
- The Technical Departments such as CNRA (National agricultural research Center), l'ONDR (national Office for Rice Development), PRAREP (Project for agricultural rehabilitation and poverty reduction);
- The civil society through ANARIZ-CI (National Association of Ivorian rice farmers).

During these meetings, some concerns were raised with the Ivorian authorities such as:

- Allocating a building in Cocody or II Plateaux containing 120 offices, a conference hall for 150 people and a meeting room of 30 seats for AfricaRice's headquarters;
- Allocating parking to hold 50 vehicles;
- Identification of 50 houses to accommodate international staff;
- Revision of the Headquarters agreement to better incorporate the issues of the security for staff and property;
- Rehabilitation of labs and equipment at Mbe;
- Supporting the relocation of AfricaRice from Cotonou to Abidjan.

For the time being, none of the aforementioned issues have been resolved. However, the Ministry of the Interior has giving a strong signal by assuring that it will take the responsibility for the security of AfricaRice staff and their property. Moreover, the station in Bouake will have closely supervised protection.

Conclusion

It is urgent to implement the agreements reached during the various meetings between the DG of AfricaRice and the Ivorian authorities.

These agreements aim first of all at dealing with the relocation of the AfricaRice's Head Office to Abidjan from where the AfricaRice's five sub-regional research stations (NDiayene in Senegal, Ibadan in Nigeria, Calavi

in Benin, Dar-es-Salam in Tanzania and Bouake in Cote d'Ivoire) are easily accessible. Secondly, the agreements aim at effecting the gradual relocation of AfricaRice staff to Côte d'Ivoire.

Revisiting the Headquarters agreement with Cote d'Ivoire needs to be done quickly so that jurisdictional immunity, immunity from persecution and the security of staff and their property can be quickly incorporated in the agreement.

ANNEX IX

Opening statements

i. Welcome Statement of the Chairperson of the National Experts Committee

Honourable Minister of Scientific Research and Higher Education

Mr Director General of AfricaRice

Mr Executive Director of CORAF

Mr Executive Director of FARA

Messrs the Directors of the National Research Institutions

Ladies and Gentlemen,

Dear Colleagues,

A little less than two years ago, in mid-September 2010, we held the 7th Biennial meeting of the National Experts Committee in Cotonou, Benin. This meeting, which centred essentially on the Global Rice Science partnership (GRiSP) and the boosting of Task Forces, was a tremendous success.

The 8th NEC session, which is currently being held in Côte d'Ivoire, after several years' absence, must augur a new era for our organization. In fact, I would like to salute the peace in this beautiful country obtained dearly and which we are all pleased with.

And so, I would like to welcome you to Côte d'Ivoire, in my capacity as Chairperson of the National Experts Committee of AfricaRice, and to say 'AKWABA' in the Ivorian tradition, notably in this magnificent conference room in Hotel N'SA in Grand-Bassam. Such a massive turnout at this meeting is a mark of interest in our organization.

To get down to the purpose of this meeting, it is a common fact that every two years, this framework permits the Directors General of the National Research Institutions to exchange views with their colleagues at the Africa Rice Centre (AfricaRice) on the achievements of AfricaRice and the difficulties it can encounter in carrying out its activities. It is the forum for thoroughly examining strategies to enable AfricaRice to meet its noble objectives, i.e. the campaign against hunger in Africa in all its facets.

This framework, which unites us, is unique and I would like to congratulate the DG of AfricaRice and his team for not having left any stone unturned to hold it at this opportune time.

Our organization's visibility has been significantly strengthened in recent years through the recognition of its performance by partners. However, I would like to encourage the DG of AfricaRice to not only pursue the process of creating conditions for the appropriation institutions by the NARS but, also in the decentralisation of the activities of AfricaRice, to make them much closer to the end users in the member states.

With such a forum leading inevitably to concrete proposals, I wish all of you excellent working conditions and fruitful discussions.

I thank you for your kind attention

ii. Statement of the Director General of the Africa Rice Centre (AfricaRice)

Ladies and Gentlemen,

Firstly, I note with joy the presence in our midst of Côte d'Ivoire's Honourable Minister of Higher Education and Scientific Research. Without doubt, his presence is not by chance. It is rather and especially a reiteration of our commitment to African scientific cooperation in line with the demands of excellence in the present context and in the future. This commitment is acknowledged by all because it has one single motive: an integral scientific boom for our continent. This, however, is and remains unequivocal to derive socio-economic progress, springboard to the well-being of the African people. I thank you, Mr Minister.

Ladies and Gentlemen,

Thanks to our joint efforts, AfricaRice has evolved into a real pan African rice research organization covering the whole of Africa. Furthermore, it has gained respect within the Consortium of International Agricultural Research. This stride will bear fruits in the course of time if along with the national research systems we develop new, solid and serious ties. This is what has motivated us to consider as priority operational capacity building of our actors, the building up of a breeding ground of young talents, seed production and dialogue between decision makers. In other words, in Africa, researchers must go beyond research to make a significant impact.

Ladies and Gentlemen,

As far as AfricaRice is concerned, we sincerely wish that this forum will promote the harmonisation of our understanding of the hubs, the strategy for the return to Côte d'Ivoire and the development of our research stations. To begin with, there are no definite ideas as such but initial thoughts that should be transformed into living realities after lengthy consultations.

I must conclude by reiterating my gratitude to the Minister of Higher Education and Scientific Research for his presence in our midst, his customary receptiveness and his remarkable contribution for a more vibrant AfricaRice.

Finally, it is my ardent wish that this meeting will be immortalised thanks to the pertinence and the quality of our work.

May God bless this scientific cooperation!

May God bless you all!

iii. Opening speech of the Honourable Minister of Higher Education, Research and Technical Innovation in Côte d'Ivoire

Local Administrative heads of Grand-Bassam,

Director General of AfricaRice,

AfricaRice Regional Representative,

National experts,

Ladies and gentlemen,

On the occasion of the 8th Biennial Meeting of the National Experts Committee of AfricaRice, I have the distinguished honour to address you and to welcome you with our traditional AKWABA, which besides takes on all its etymological sense. In fact, AfricaRice was forced to leave at the height of the Ivorian crisis, but now it is on its way back to Côte d'Ivoire.

I rightly appreciate the honour bestowed on our country after this serious crisis, to once again host big meetings, conferences and other types of international meetings. Today's meeting is of special significance to the Ivorian Government in the light of its ambitions to respond in the short term to the challenges of food security at the national and sub-regional levels.

AfricaRice's return and the resumption of its activities constitute a priority for our country. The expectations are numerous and varied, coming from not only the local farmer organizations but also government institutions, including development partners. Côte d'Ivoire proudly welcomes this opportunity to once again host the headquarters of this institution; our joint institution. In actual fact, the different organs that govern the running of AfricaRice have agreed on its return and in retaining the headquarters in Côte d'Ivoire. However, this return to its Ivorian base requires urgent answers to key concerns of AfricaRice's Management. Several preliminary conditions for this return in the form of a checklist are being taken care of and thus are awaiting action. Indeed, the needs tied to the transfer of the headquarters from Cotonou to Abidjan demand housing infrastructure, over a hundred offices, high capacity meeting rooms, parking space for 50 vehicles, rehabilitation of the laboratories at the M'Bé station, identification of approximately 50 houses for staff along with relocation

costs to Côte d'Ivoire. Furthermore, a review of the headquarters agreement will be desirable.

Côte d'Ivoire is poised to honour and satisfy these requests; therefore commitments have been made at the highest state level. Among the priority issues, that of the security of persons and property seems unequivocal and thus has implications on the rest.

To date, the answer given by the Minister of State in charge of internal security assures us and provides beyond security guarantees, reasons to believe and hope in the future. The return to peace and the level 1 security on the United Nations scale is a process which may appear slow, even long. But, each victory won over yesterday is additional reason to believe in a better tomorrow. Every partner that believes this and settles in Côte d'Ivoire is contributing to the consolidation of this peace and to the stability of its economic, social and political programs.

The Ministry of Higher Education has taken to resolve the matters that have been raised. Solutions are in progress, but the effects of the crisis coupled with the eagerness of numerous partners to return, is putting pressure on real estate, making it all the more difficult, in a relatively short term, to meet such important housing needs. Nevertheless, the question of identifying houses for staff has met with partial success; otherwise some solutions are in sight. Security measures will be guaranteed and dealt with as information and details are received from AfricaRice's management. The review of the headquarters agreement is envisaged.

I am convinced that we shall find solutions to all these requests. One must observe however that for over a year now government's efforts have succeeded in giving a facelift to our towns and cities, cutting down on the insalubrity and insecurity. General administration, health centres and other such structures, schools and colleges are operational. Alongside government's achievements, other entities are playing their role in making Côte d'Ivoire attractive. New supermarkets and hypermarkets are opening up, several airline companies are basing their operations in Abidjan, and road infrastructure is improving, with the forthcoming commissioning of the segment Motorway to Yamoussoukro. There is certainly a lot to be accomplished to attain the standards required

by international institutions. But, the food situation in which our sub-region finds itself warrants a return to, and resumption, in the very short term, of AfricaRice's activities.

At the level of the department that I head, we are committed to adorn research with its noble apparels and to give it its rightful place in the development of our countries. Thus, a law on the Orientation and Programming of Scientific Research is at the point of being passed. The main areas revolve around 8 poles of competence intended to pool human and technical capabilities, energy and financial means for an appropriate and sustainable development. The national policy and the strategic plan for Scientific Research and Technological Innovation will be adopted shortly. Universities will present a new face for a fresh start. These are enough proofs which showcase our commitment and our faith in the possibility and role that Research and Training can play to help us reach the medium term millennium goals (MDGs).

I would then like to end my statement by expressing my gratitude to the Ivorian government headed by H.E. President Alassane Ouattara for all the steps and decisions taken in favour of the return of our joint institution to its headquarters in Côte d'Ivoire. In wishing you total success in your deliberations and a pleasant stay in Côte d'Ivoire, I declare the 8th Biennial Meeting of the National Experts Committee open.

Minister of Higher Education, Scientific Research and Technological Innovation
Ibrahima Cissé

ANNEX X

List of Participants

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ICARDA	International Center for Agricultural Research in the Dry Areas (Aleppo, Syria)
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